EFFECTIVE 12-01-96

VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
SA S9	SECRET EAR	274.07

CHARGE OPTIONS AVAILABLE ON THE SA S9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
CLEAR SHELL	CLEAR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
REAL EAR PROBE CHANNEL	PV	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEQUEL	SEQUEL	97.99
SOFT COAT	SOFT	13.79
SYNERGY HIGH FREQUENCY	SHF	82.79
SYNERGY TILL	SYN	82.79
TK POT	TK POT	13.79
ULTRA SHELL PROCESS	USP	10.34
VARIABLE COMPRESSION POT	VCP	10.34

MODEL	TYPE	CONTRACT COST
SAT9	CIC	462.36

CHARGE OPTIONS AVAILABLE ON THE SAT9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
CUSTOM POWER TYMP	CPT	55.19
FLEX CANAL	FLEX	10.34
KAMP	KAT	82.79
KAMP CLASSIC	KAC	82.79
REAL EAR PROBE CHANNEL	PV	13.79
SOFT COAT	SOFT	13.79
SYNERGY TILL/TYMPANETTE	SYT	68.99
TYMP COMPRESSION CLASS D	TCD	34.49
ULTRA SHELL PROCESS	USP	10.34

World Headquarters
6700 Washington Ave. So.
Eden Prairie, MN
USA 55344-3476

P.O. Box 9457
Minneapolis, MN
USA 55440-9457

STARKEY
Laboratories, Inc.

November 26, 1996

Gail Hixon
Contracting
VA Denver Distribution Center
PO Box 25166
Denver, CO 80225-0166

Dear Gail:

In regards to the Supplemental Agreement 7 and the Publication list, we would like to make the necessary changes on the Publication list.

Tunable Notch Filter	(TNF)	should be on CE9 and CEL9 only
Probe Tube Vent	(PV)	should be on all models
Flex canal	(Flex)	should be on all models
Class D amplifier	(CLD)	should be on CE9 and CEL9 only
Ultra Shell Processing	(USP)	should be on all models
Soft Coat	(SOFT)	should be on all models

Everything else is correct remains the same. Any questions please feel free to give me a call.

Sincerely,
Starkey Labs, Inc

Sue Pehringer
Sue Pehringer
Governmental Services Coordinator

WATS: 800 328-8602
Tel: (612) 941-6401

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
CE 9	STANDARD	148.73

CHARGE OPTIONS AVAILABLE ON THE CE 9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
BICROS	BICROS	62.09
CLASS D	CLD	27.59
COMPRESSION SWITCH	CS	17.24
CROS	CROS	55.19
DELUXE BICROS	DBICROS	96.59
DIRECT AUDIO INPUT	DAI	27.59
DISCOVERY II	DCR	48.29
DISCOVERY MATRIX	DMM	48.29
DUAL RECEIVER OPTION	DRO	13.79
FEEDBACK REDUCTION CIRCUIT	FRC	13.79
FIXED FLAT RESPONSE	FFR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
GAIN SWITCH	GS	13.79
HDP II	HDC	34.49
HIGH CUT SWITCH	HFS	13.79
HIGH DEFINITION POWER	HDP	20.69
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LINEAR MASKER	TML	82.45
LOW CUT SWITCH	LFS	13.79
LOW FREQUENCY CONTROL	LFP	10.34
MULTI-CROS	MCROS	68.99
OUTPUT CONTROL	LP	10.34
OUTPUT LIMITING SWITCH	LPS	13.79
POWER CROS W/BONE OSCILLATOR AND HEADBAND	PCROS/BO	82.79
POWER CROS W/CUSTOM RECEIVER	PCROS/CR	68.99
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RECEIVER CROS	RCROS	55.19
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	62.09

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
CE 9	STANDARD	148.73

CHARGE OPTIONS AVAILABLE ON THE CE 9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	SEQUEL	97.99
SOFT COAT	**SOFT**	**13.79**
STAR TELECOIL SWITCH	STC	17.24
SYNERGY HIGH FREQUENCY	**SHF**	**82.79**
SYNERGY TILL	**SYN**	**82.79**
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
ULTRA SHELL PROCESS	**USP**	**10.34**
VARIABLE COMPRESSION POT	VCP	10.34
TUNABLE NOTCH FILTER	TNF	20.59

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
CE L9-LP	LOW PROFILE	161.23

CHARGE OPTIONS AVAILABLE ON THE CE L9-LP MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
BICROS	BICROS	62.09
CLASS D	CLD	27.59
CLEAR SHELL	CLEAR	13.79
COMPRESSION SWITCH	CS	17.24
CROS	CROS	55.19
DELUXE BICROS	DBICROS	96.59
DIRECT AUDIO INPUT	DAI	27.59
DISCOVERY II	DCR	48.29
DISCOVERY MATRIX	DMM	48.29
FEEDBACK REDUCTION CIRCUIT	FRC	13.79
FIXED FLAT RESPONSE	FFR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
GAIN SWITCH	GS	13.79
HDP II	HDC	34.49
HIGH CUT SWITCH	HFS	13.79
HIGH DEFINITION POWER	HDP	20.69
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW CUT SWITCH	LFS	13.79
LOW FREQUENCY CONTROL	LFP	10.34
MULTI-CROS	MCROS	68.99
OUTPUT CONTROL	LP	10.34
OUTPUT LIMITING SWITCH	LPS	13.79
POWER CROS W/BONE OSCILLATOR AND HEADBAND	PCROS/BO	82.79
POWER CROS W/CUSTOM RECEIVER	PCROS/CR	68.99
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RECEIVER CROS	RCROS	55.19
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	62.09
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
CE L9-LP	LOW PROFILE	161.23

CHARGE OPTIONS AVAILABLE ON THE CE L9-LP MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
SEQUEL	SEQUEL	97.99
SOFT COAT	**SOFT**	**13.79**
STAR TELECOIL SWITCH	STC	17.24
SYNERGY HIGH FREQUENCY	**SHF**	**82.79**
SYNERGY TILL	**SYN**	**82.79**
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
ULTRA SHELL PROCESS	USP	10.34
VARIABLE COMPRESSION POT	VCP	10.34
TUNABLE NOTCH FILTER	TNF	27.59

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
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MODEL	TYPE	CONTRACT COST
CE H9	HALF SHELL	197.72

CHARGE OPTIONS AVAILABLE ON THE CE H9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
COMPRESSION SWITCH	CS	17.24
DISCOVERY I	DSC	34.49
FIXED FLAT RESPONSE	FFR	13.79
GAIN CONTROL	GAIN	10.34
HDP II	HDC	34.49
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	SEQUEL	97.99
SOFT COAT	**SOFT**	**13.79**
STAR TELECOIL	STC	17.24
SYNERGY HIGH FREQUENCY	**SHF**	**82.79**
SYNERGY TILL	**SYN**	**82.79**
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
ULTRA SHELL PROCESS	**USP**	**10.34**
VARIABLE COMPRESSION POT	VCP	10.34
FLEX CANAL	FLEX	10.34

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CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
SA C9	INTRA CANAL	229.08

CHARGE OPTIONS AVAILABLE ON THE SA C9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
COMPRESSION SWITCH	CS	17.24
DISCOVERY I	DSC	34.49
FIXED FLAT RESPONSE	FFR	13.79
GAIN CONTROL	GAIN	10.34
HDP II	HDC	34.49
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	SEQUEL	97.99
SOFT COAT	**SOFT**	**13.79**
STAR TELECOIL	STC	17.24
SYNERGY HIGH FREQUENCY	**SHF**	**82.79**
SYNERGY TILL	**SYN**	**82.79**
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
ULTRA SHELL PROCESS	**USP**	**10.34**
VARIABLE COMPRESSION POT	VCP	10.34
REAL EAR PROBE ON MODEL	FV	13.79
FLEX CANAL	FLEX	10.34

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
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MODEL	TYPE	CONTRACT COST
SA S9	SECRET EAR	274.07

CHARGE OPTIONS AVAILABLE ON THE SA S9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
CLEAR SHELL	CLEAR	13.79
GAIN CONTROL	GAIN	10.34
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEQUEL	SEQUEL	97.99
SOFT COAT	**SOFT**	**13.79**
SYNERGY HIGH FREQUENCY	**SHF**	**82.79**
SYNERGY TILL	**SYN**	**82.79**
TK POT	TK POT	13.79
ULTRA ~~PROCESS SHELL~~ shell Process	**USP**	**10.34**
VARIABLE COMPRESSION POT	VCP	10.34
REAL EAR PROBE CHANNEL	PV	13.79

MODEL	TYPE	CONTRACT COST
SAT9	CIC	462.36

CHARGE OPTIONS AVAILABLE ON THE SAT9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
CUSTOM POWER TYMP	CPT	55.19
KAMP	KAT	82.79
KAMP CLASSIC	KAC	82.79
SOFT COAT	**SOFT**	**13.79**
SYNERGY TILL/TYMPANETTE	**SYT**	**68.99**
TYMP COMPRESSION CLASS D	TCD	34.49
REAL EAR PROBE CHANNEL	PV	13.79
FLEX CANAL	FLEX	10.34
ULTRA SHELL PROCESS	USP	10.34

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU ~~09-30-97~~

MODEL	TYPE	CONTRACT COST
CE 9	STANDARD	148.73

CHARGE OPTIONS AVAILABLE ON THE CE 9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	**ALP**	**13.79**
BICROS	BICROS	62.09
CLASS D	CLD	27.59
~~CLEAR SHELL~~	~~CLEAR~~	~~13.79~~
COMPRESSION SWITCH	CS	17.24
CROS	CROS	55.19
DELUXE BICROS	DBICROS	96.59
DIRECT AUDIO INPUT	DAI	27.59
DISCOVERY II	DCR	48.29
DISCOVERY MATRIX	DMM	48.29
DUAL RECEIVER OPTION	DRO	13.79
FEEDBACK REDUCTION CIRCUIT	FRC	13.79
FIXED FLAT RESPONSE	FFR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
GAIN SWITCH	GS	13.79
HDP II	HDC	34.49
HIGH CUT SWITCH	HFS	13.79
HIGH DEFINITION POWER	HDP	20.69
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LINEAR MASKER	TML	82.45
LOW CUT SWITCH	LFS	13.79
LOW FREQUENCY CONTROL	LFP	10.34
MULTI-CROS	MCROS	68.99
OUTPUT CONTROL	LP	10.34
OUTPUT LIMITING SWITCH	LPS	13.79
POWER CROS W/BONE OSCILLATOR AND HEADBAND	PCROS/BO	82.79
POWER CROS W/CUSTOM RECEIVER	PCROS/CR	68.99
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RECEIVER CROS	RCROS	55.19
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	62.09

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
CE 9	STANDARD	148.73

CHARGE OPTIONS AVAILABLE ON THE CE 9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	**SEQUEL**	**97.99**
STAR TELECOIL SWITCH	STC	17.24
~~STARKEY SOFT COTE~~	~~SSC~~	~~13.79~~
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34

Ultra Shell Process USP 10.34

SYNERGY HIGH FREQUENCY SHF 82.79
SYNERGY TILL SYN 82.79
SOFT COAT SOFT 13.79

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CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
CE L9-LP	LOW PROFILE	161.23

CHARGE OPTIONS AVAILABLE ON THE CE L9-LP MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	**ALP**	**13.79**
BICROS	BICROS	62.09
CLASS D	CLD	27.59
~~CLEAR SHELL~~	~~CLEAR~~	~~13.79~~
COMPRESSION SWITCH	CS	17.24
CROS	CROS	55.19
DELUXE BICROS	DBICROS	96.59
DIRECT AUDIO INPUT	DAI	27.59
DISCOVERY II	DCR	48.29
DISCOVERY MATRIX	DMM	48.29
FEEDBACK REDUCTION CIRCUIT	FRC	13.79
FIXED FLAT RESPONSE	FFR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
GAIN SWITCH	GS	13.79
HDP II	HDC	34.49
HIGH CUT SWITCH	HFS	13.79
HIGH DEFINITION POWER	HDP	20.69
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW CUT SWITCH	LFS	13.79
LOW FREQUENCY CONTROL	LFP	10.34
MULTI-CROS	MCROS	68.99
OUTPUT CONTROL	LP	10.34
OUTPUT LIMITING SWITCH	LPS	13.79
POWER CROS W/BONE OSCILLATOR AND HEADBAND	PCROS/BO	82.79
POWER CROS W/CUSTOM RECEIVER	PCROS/CR	68.99
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RECEIVER CROS	RCROS	55.19
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	62.09
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79

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STARKEY LABORATORIES INC.
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MODEL	TYPE	CONTRACT COST
CE L9-LP	LOW PROFILE	161.23

CHARGE OPTIONS AVAILABLE ON THE CE L9-LP MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
SEQUEL	SEQUEL	97.99
STAR TELECOIL SWITCH	STC	17.24
~~STARKEY SOFT COTE~~	~~SSC~~	~~13.79~~
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34

Ultra Shell Process USP 10.34
SYNERGY HIGH FREQUENCY SHF 82.79
SYNERGY TILL SYN 82.79
SOFT COAT SOFT 13.79

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MODEL	TYPE	CONTRACT COST
CE H9	HALF SHELL	197.72

CHARGE OPTIONS AVAILABLE ON THE CE H9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	**ALP**	**13.79**
~~CLEAR SHELL~~	~~CLEAR~~	~~13.79~~
COMPRESSION SWITCH	CS	17.24
DISCOVERY I	DSC	34.49
FIXED FLAT RESPONSE	FFR	13.79
GAIN CONTROL	GAIN	10.34
HDP II	HDC	34.49
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	**SEQUEL**	**97.99**
STAR TELECOIL	STC	17.24
~~STARKEY SOFT COTE~~	~~SSC~~	~~13.79~~
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34
Ultra Shell Process	USP	10.34
SYNERGY HIGH FREQ VENCY	SHF	82.79
SYNERGY TILL	SYN	82.79
SOFT COAT	SOFT	13.79

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MODEL	TYPE	CONTRACT COST
SA C9	INTRA CANAL	229.08

CHARGE OPTIONS AVAILABLE ON THE SA C9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	**ALP**	**13.79**
~~CLEAR SHELL~~	~~CLEAR~~	~~13.79~~
COMPRESSION SWITCH	CS	17.24
DISCOVERY I	DSC	34.49
FIXED FLAT RESPONSE	FFR	13.79
GAIN CONTROL	GAIN	10.34
HDP II	HDC	34.49
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	**SEQUEL**	**97.99**
STAR TELECOIL	STC	17.24
~~STARKEY SOFT COTE~~	~~SSC~~	~~13.79~~
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34
Ultra Shell Process	USP	10.34
SYNERGY HIGH FREQUENCY	SHF	82.79
SYNERGY TILL	SYN	82.79
SOFT COAT	SOFT	13.79

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
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MODEL	TYPE	CONTRACT COST
SA S9	SECRET EAR	274.07

CHARGE OPTIONS AVAILABLE ON THE SA S9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
/ACTIVE LOW CUT	ALC	13.79
~~CLEAR SHELL~~	~~CLEAR~~	~~13.79~~
GAIN CONTROL	GAIN	10.34
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEQUEL	SEQUEL	97.99
/~~STARKEY SOFT COTE~~	~~SSC~~	~~13.79~~
TK POT	TK POT	13.79
VARIABLE COMPRESSION POT	VCP	10.34

MODEL	TYPE	CONTRACT COST
SAT9	CIC	462.36

CHARGE OPTIONS AVAILABLE ON THE SAT9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
CUSTOM POWER TYMP	CPT	55.19
KAMP	KAT	82.79
KAMP CLASSIC	KAC	82.79
TYMP COMPRESSION CLASS D	TCD	34.49
/SYNERGY TILL/TYMPANETTE	SYT	68.99
SOFT COAT	SOFT	13.79

USP
Ultra Process SUP
10.34 SYN
-SYNERGY TILL
SYNERGY HIGH FREQUENCY 82.79 SHF
SOFT COAT SOFT 13.79

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE | PAGE 1 OF PAGES 1

2. AMENDMENT/MODIFICATION NO.: Supplemental Agreement "7"

3. EFFECTIVE DATE: December 1, 1996

4. REQUISITION/PURCHASE REQ. NO.:

5. PROJECT NO. (If applicable):

6. ISSUED BY — CODE

Contracting (905C)
VA Denver Distribution Center
PO Box 25166
Denver, Colorado 80225-0166

7. ADMINISTERED BY (If other than Item 6) — CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

Starkey Laboratories Inc.
6700 Washington Avenue S
Eden Prairie, MN 55344

CODE | FACILITY CODE

(✓) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

XX 10A. MODIFICATION OF CONTRACT/ORDER NO. V791P-0047

10B. DATED (SEE ITEM 13) 10-1-94

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ______ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
36X4537

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-1 Changes
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒XXX is required to sign this document and return ONE copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Modify the above mentioned contract to reflect the following changes:

ADD Ultra Shell Process, 31% discount off commercial pricelist, of $14.00 with VA price of $10.34.
ADD Synergy Till, 31% discount off commercial pricelist, of $119.98, with VA price of $82.79.
ADD Synergy Till/Tympanette, 31% discount off commercial pricelist, of $99.00, with VA price of $68.99.
ADD Synergy High Frequency, 51.3% discount off commercial pricelist, of $169.99, with VA price of $82.79.

EFFECTIVE DATE OF THIS SUPPLEMENTAL AGREEMENT IS DECEMBER 1, 1996.
ALL OTHER TERMS AND CONDITIONS OF THE CONTRACT REMAIN THE SAME.

Plf FOIA Resp 000067

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print): Sue Fehringer, Government Services Coordinator

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print): GAIL A. HIXON, CONTRACTING OFFICER

15B. CONTRACTOR/OFFEROR: [signature] (Signature of person authorized to sign)

15C. DATE SIGNED: 11/15/96

16B. UNITED STATES OF AMERICA BY [signature] (Signature of Contracting Officer)

16C. DATE SIGNED: 11-24-96

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

VA DDC

FAX

Date: 11/15/96

Number of pages including cover sheet:

To:

SUE PEHRINGER

Phone: 800-328-8602

Fax phone: 612-828-6985

CC:

From:

GAIL A HIXON

Phone: 303 914-5182

Fax phone: 303 914-5159

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

SUE

ATTACHED IS YOUR MODIFICATION AND DDC'S PUBLICATION. PLEASE REVIEW, SIGN AND RETURN.

GAIL

DEPARTMENT OF VETERANS AFFAIRS
Denver Distribution Center
PO Box 25166
Denver CO 80225-0166

November 15, 1996

In Reply Refer To: 905C

Sue Pehringer
Starkey Laboratories Inc.
6700 Washington Ave S.
Eden Prairie, MN 55344

Dear Ms. Pehringer:

This is reference to contract number V791P-0047, Custom In-the-Ear Hearing Aids.

Enclosed is a copy of Supplemental Agreement "7". This supplemental is issued to include additional component(s). Please complete blocks 15A, 15B, and 15C and return to our office. An executed copy will be returned for your files.

Also, enclosed is a copy of the Denver Distribution Center's (DDC) publication of models, components and pricing. DDC is the only one who can change the DDC order code. This file is what the clinic selects to order the item in the Remote Order Enter System. A new publication will be sent to the clinics, prior to the effective date. Please review and not any change(s) to this office as soon as possible.

If you have any questions, please contact me at (303) 914-5182.

Sincerely,

Gail A. Hixon
Contracting Officer

Enclosures

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE | PAGE 1 OF PAGES 1

2. AMENDMENT/MODIFICATION NO.: Supplemental Agreement "7"
3. EFFECTIVE DATE: December 1, 1996
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Contracting (905C)
VA Denver Distribution Center
PO Box 25166
Denver, Colorado 80225-0166

7. ADMINISTERED BY *(If other than Item 6)* CODE

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*
Starkey Laboratories Inc.
6700 Washington Avenue S
Eden Prairie, MN 55344

CODE | FACILITY CODE

(✓) 9A. AMENDMENT OF SOLICITATION NO.
9B. DATED *(SEE ITEM 11)*
XX 10A. MODIFICATION OF CONTRACT/ORDER NO. V791P-0047
10B. DATED *(SEE ITEM 13)* 10-1-94

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
(a) By completing Items 8 and 15, and returning ______ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
36X4537

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-1 Changes
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☐XXX is required to sign this document and return ONE copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

Modify the above mentioned contract to reflect the following changes:

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ADD Synergy Till, 31% discount off commercial pricelist, of $119.98, with VA price of **$82.79.**
ADD Synergy Till/Tympanette, 31% discount off commercial pricelist, of $99.00, with VA price of **$68.99.**
ADD Synergy High Frequency, 51.3% discount off commercial pricelist, of $169.99, with VA price of **$82.79.**

EFFECTIVE DATE OF THIS SUPPLEMENTAL AGREEMENT IS DECEMBER 1, 1996.
ALL OTHER TERMS AND CONDITIONS OF THE CONTRACT REMAIN THE SAME.

Plf FOIA Resp 000070

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*

16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*
GAIL A. HIXON, CONTRACTING OFFICER

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)
15C. DATE SIGNED

16B. UNITED STATES OF AMERICA
BY
(Signature of Contracting Officer)
16C. DATE SIGNED

Veterans Administration

Memorandum

Date: AUG 29 1996

From: Acting Director, Audiology and Speech Pathology Service (117E)

Subj: Custom Hearing Aid Modification - Starkey Laboratories, Inc. (V791P-0047) (Your Memorandum Dated August 5, 1996)

To: Contracting Officer (905C)

1. The USP and the SSL options are acceptable.

2. The Synergy Till (SYN) and the Synergy Till Tympanette (SYT) are the same circuit named to distinguish the different models. These circuits appear to be variations of the K-AMP. Please compare the pricing structure to our costs for the K-AMP. If these circuits are more expensive, we should request an explanation of the cost/benefit for these circuits.

3. The Synergy High Frequency (SHF) appears to be a high frequency variation of the circuit discussed in 2, above. Cost should be reviewed compared to the K-AMP. We should request an explanation of the technical value associated with the high cost. It would appear that this circuit option cost should be comparable to the costs for the other circuits.

4. If the manufacturer indicates that the circuits offered in this modification are technologically superior to the K-AMP, request that they provide side by side data comparison of their K-AMP to these circuits to illustrate the technical advantages.

Lucille B. Beck

LUCILLE B. BECK, Ph.D.

Department of
Veterans Affairs

Memorandum

Date: August 5, 1996

From: Contracting Officer (905C)

Subj: Custom Hearing Aid Modification - Starkey Laboratories Inc. (V791P-0047)

To: VANHAP Coordinator (126)

1. Attached is a copy of my letter dated June 6, 1996, notifying the vendors that consideration for additional item(s) to the contract should be submitted now. Also, attached is a copy of the information received from the vendor. Please review and provide your comments, in writing, to this office. Upon receipt, a modification will be executed.

2. If you have any questions, please call me.

Gail A. Hixon

Attachments

World Headquarte
6700 Washington Ave. So.
Eden Prairie, MN
USA 55344-3476

P. O. Box 9457
Minneapolis, MN
USA 55440-9457

STARKEY
Laboratories, Inc.

July 1, 1996

Gail Hixon
Denver Distrubution Center
155 Van Gordon St
Lakewood, CO 80228

RE: Modification 3
V791P-0047

Dear Gail:

We would like to amend the above contract to add/change the following items:

OPTIONS (ADDITIONS)	PRICELIST	VAPRICE	DISCOUNT
Ultra Shell Process (USP) (Replaces Hypo Clear Lucite $13.79 Available on all models)	$ 14.99	$ 10.34	31%
Synergy Till (SYN)* (Available on CE9, CEL9, CEH9, SAC9, SAS9)	$119.99	$ 82.79	31%
Synergy Till/Tympanette (SYT)* (Available on SAT9)	$ 99.99	$ 68.99	31%
Synergy High Frequency (SHF)* (Available on CE9, CEL9, CEH9, SAC9, SAS9)	$169.99	~~$117.29~~ $82.79	~~31%~~ 51.3%
Soft Coat (was removed, need back on) SSL (Available on all models)	$ 19.99	$ 13.79	31%

DELETIONS

Starkey Soft Coat (SSC)

Hypoallergenic Clear Lucite (CLEAR)

WATS: 800 328-8602
Tel: (612) 941-6401
Fax: (612) 828-9262

World Headquarters
6700 Washington Ave. So.
Eden Prairie, MN
USA 55344-3476

P.O. Box 9457
Minneapolis, MN
USA 55440-9457

STARKEY
Laboratories, Inc.

Commerciality on Synergy

YEAR-TO-DATE (SYN)	6,000
YEAR-TO-DATE (SYT)	1,600
YEAR-TO-DATE (SHF)	Unavailable at this time, will be provided later

I certify that no discounts in excess of those disclosed in the modification request have been offered to any customer.

Sue Pehringer
Governmental Services Coordinator

*Specs on the Synergy circuits will follow in Airborne.

Sincerely,
Starkey Labs. Inc

Sue Pehringer
Governmental Services Coordinator

WATS: 800 328-8602
Tel: (612) 941-6401
Fax: (612) 828-9262

Synergy - High Frequency Emphasis

HFE Spec Sheet Copy

Head: Custom ultra high pass amplification: Synergy High Frequency Emphasis

Text: The Synergy High Frequency Emphasis circuit is a Class D input compression circuit specifically designed for use with patients who have high frequency losses. Featuring very little gain at 500 and 1000 Hz, the amplification envelope may be further shifted towards the higher frequencies by means of a Crossover Frequency control, resulting in an ultra high frequency response configuration. A High Cut trimmer control is standard, and an optional Low Cut trimmer is available for further low frequency reduction. An advanced Variable Release Compression feature adjusts release time according to the duration of the input signal. The circuit has a kneepoint at 60 dB to maximize gain in the high frequencies as well as to provide protection from intense high frequency input signals. As shown in Table 1, the Synergy HFE is available in all custom styles.

Appropriate frequency response configuration.

The Synergy High Frequency Emphasis has a response shape that is particularly suited for fitting high frequency losses as shown in Figures 1, 2, and 3. The Crossover Frequency trimmer control provides substantial reduction of gain at 500, 1000 Hz and 2000 Hz, by rotation in a clockwise direction. (Figure 4). The High Cut trimmer provides control over feedback and provides a high frequency rolloff when desired. Further low and mid frequency reduction is available with the optional Low Cut Control. (Figure 5) This flexibility in response shaping makes the Synergy HFE highly appropriate for a wide range of high frequency losses.

However, amplification is not confined entirely to the high frequencies. A low frequency shelf of amplification having minimal gain extends the bandwidth of amplification into the lower frequencies as shown in Figure 6. This feature has the advantage of eliminating the sensation of harshness or tinniness that is occasionally noticed in some high frequency emphasis instruments.

Performance of the Synergy circuit.

Figure 7 and 8 shows the full on gain curve and the output curve families of the Synergy High Frequency Emphasis instrument. Particularly important is the absence of blooming (no disproportionate gain increase in the mid and low frequencies as the input signal increases), a desirable characteristic for correction of high frequency losses. Additionally, the kneepoint and compression ratio settings (See Figure 9) together provide optimal high frequency gain/amplification, while at the same time affording excellent protection from high level input signals.

The Synergy High Frequency Emphasis input compression circuit employs Class D amplification. The wide bandwidth, increased headroom and reduced harmonic and intermodulation distortion characteristic of Class D (when compared to equivalent Class A circuits), coupled to the advanced Synergy input compression circuit provides an amplifier that can easily handle widely varying input signals in both quiet and high noise levels with a minimum of harmonic and intermodulation distortion. (See Figures 11 and 12)

Trimmer controls.

In the CE style, two continuously adjustable trimmer controls are furnished as standard features: 1) a Crossover Frequency (CF) control and 2), a High Cut (HC) control. The INTRA and SecretEar styles are provided with one trimmer control as a standard feature, the CF control; the HC or LC trimmer controls may be ordered as additonal options, space permitting.

When the CF control is rotated in a clockwise direction, the crossover frequency is advanced from 900 Hz to 3500 Hz and as a result, the frequency response is shifted towards the higher frequencies. (See Figure 4) Clockwise rotation of the HC trimmer control causes a reduction of the high frequency portion of the spectrum, and rotating the optional LC trimmer control in a clockwise direction reduces the mid-frequency response, as shown in Fig 5.

Synergy HFE instruments are shipped with all trimmer controls set in the full counterclockwise position, i.e., crossover frequency at 900 Hz and broadest

HFE Spec Sheet Copy

Head: Custom ultra high pass amplification: Synergy High Frequency Emphasis

Text: The Synergy High Frequency Emphasis circuit is a Class D input compression circuit specifically designed for use with patients who have high frequency losses. Featuring very little gain at 500 and 1000 Hz, the amplification envelope may be further shifted towards the higher frequencies by means of a Crossover Frequency control, resulting in an ultra high frequency response configuration. A High Cut trimmer control is standard, and an optional Low Cut trimmer is available for further low frequency reduction. An advanced Variable Release Compression feature adjusts release time according to the duration of the input signal. The circuit has a kneepoint at 60 dB to maximize gain in the high frequencies as well as to provide protection from intense high frequency input signals. As shown in Table 1, the Synergy HFE is available in all custom styles.

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Performance of the Synergy circuit.

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When the CF control is rotated in a clockwise direction, the crossover frequency is advanced from 900 Hz to 3500 Hz and as a result, the frequency response is shifted towards the higher frequencies. (See Figure 4) Clockwise rotation of the HC trimmer control causes a reduction of the high frequency portion of the spectrum, and rotating the optional LC trimmer control in a clockwise direction reduces the mid-frequency response, as shown in Fig 5.

Synergy HFE instruments are shipped with all trimmer controls set in the full counterclockwise position, i.e., crossover frequency at 900 Hz and broadest response. Table 2 shows the standard and optional controls and features that are available with Synergy HFE.

Input-output characteristics.

The input-output function of the Synergy HFE shows a unity slope (1:1) up to a 60 dB kneepoint. (See Figure 9) As the volume control is reduced, the kneepoint remains at 60 dB, a characteristic of input compression circuits. (See Figure 10)

Advanced Variable Release Compression.

Advanced Variable Release Compression circuitry responds to average signal energy in the environment rather than to peak signal energy. This has the advantage of preventing over-reduction of gain that is sometimes characteristic of peak-detecting compression amplifiers. Two averaging detectors with differing time constants adjust to input signals of different lengths. For long duration input signals, the slow detector controls the system gain, providing appropriate, longer release times. For short duration signals, the fast detector takes over, providing very fast release times, as shown in Figure 13.

Starcoil.

Synergy HFE can be ordered with an optional telecoil with built in pre-amplifier for those patients that require additional assistance on the telephone. The response of the telecoil approximates the acoustic response of the matrix selected, as shown in Figure 14. The Starcoil is routinely available in the CE style, and when space permits, in the INTRA style.

Recommendations.

Although specifically designed for those patients who have precipitous high frequency losses, the Synergy HFE is also extremely useful for patients with moderately sloping high frequency loss configurations, or for others where hearing within the low frequencies falls within normal limits. The audiogram fitting range shown on page x indicates the approximate extent of useful Synergy High Frequency Emphasis applications.

ANSI data.

The data for ~~Sequel Dual Stage Compression~~ Synergy High Frequency Emphasis are obtained and performance expressed according to ANSI 3.22 (1987), Specification of Hearing Aid Characteristics. Additional data obtained are according to ANSI S3.42 (1942), Testing Hearing Aids With a Broad Band Signal, and ANSI S3.35 (1985), Measurement of Performance Characteristics of Hearing Aids Under Simulated *in-situ* Working Conditions.

Each instrument when shipped is accompanied by an accurate, individually obtained Custom Data Sheet for that specific instrument, and all required ANSI measurements plus information on the type of circuitry and trimmer controls are included. The Starkey proprietary Real Time Analyzer System comprises the basic test equipment. Hearing instruments are attached to the HA-1 2cm^3 coupler with putty, and vents are sealed at the faceplate.

	CE	CC (canal)
Peak SSPL90	85-105 dB SPL	85-105 dB SPL
HFA SSPL90	81-101 dB SPL	81-101 dB SPL
Peak gain	20-40 dB	20-40 dB
HFA Full on gain	14-36 dB	14-35 dB
Frequency range	900-6600 Hz	900-7200 Hz
Harmonic distortion 500 Hz, 800 Hz, 1600Hz	10< %	10 < %
Equivalent input noise	35< dB	35 < %
Battery current	.55 mA	.82 mA

Estimated battery life; 16 hour day

	13 zinc-air	10A zinc-air
	19-29 days	5-8 days

Attack time	N/A < ms	N/A < ms
Release time	150 - 450	
Short duration stim (100 ms)	100 ms	300 ms
Long duration stim (2 sec)	180 ms	500 ms

Tables

Table 1. Available Synergy High Frequency Emphasis matrices.

Table 2. Standard and optional controls and features that are available with Synergy High Frequency Emphasis.

Figures

Figure 1. SSPL90 for Synergy High Frequency Emphasis instrument; data are shown for 95/30/HF matrix, CE style. Starkey specification tolerance for peak SSPL90 is +/- 4 dB.
Ordinate: Output dB re 20 uPa
Abscissa: Frequency in Hz

Figure 2. Full on gain curve for Synergy High Frequency Emphasis instrument; data are shown for 95/30/HF matrix, CE style. Starkey specification tolerance for peak gain is +6/-4 dB.
Ordinate: Gain in dB
Abscissa: Frequency in Hz

Figure 3. Estimated insertion response on KEMAR for Synergy HFE; data are shown for 95/30/HF matrix, CE style.
Ordinate: Gain in dB
Abscissa: Frequency in Hz

Figure 4. Shaded area shows the change in frequency response that is available as the Crossover Frequency trimmer control is rotated between extremes; data are shown for 95/30/HF matrix, CE style.
Ordinate: Gain in dB
Abscissa: Frequency in Hz

Figure 5. Shaded areas shows the change in frequency response provided by the standard High Cut trimmer control and the optional Low Cut trimmer control; data are shown for 95/30/HF matrix, full on gain, CE style.
Ordinate: Gain in dB
Abscissa: Frequency in Hz

Figure 6. Response curve shows a very low gain shelf of amplification in the low frequencies provided by Synergy HFE.
Ordinate: Gain in dB
Abscissa: Frequency in Hz

Figure 7. Family of full on gain curves for input signal levels of 50 to 90 dB SPL; data are shown for 95/30/HF matrix, CE style.
Ordinate: Gain in dB
Abscissa: Frequency in Hz

Figure 8. Family of output curves for input signal levels of 50 to 90 dB SPL; data are shown for 95/30/HF matrix, CE style.
Ordinate: Output (dB SPL)
Abscissa: Frequency in Hz

Figure 9. Typical input-output characteristics; 2000 and 3000 Hz; data are shown for 95/30/HF matrix, CE style.
Ordinate: Output (dB SPL)
Abscissa: Input (dB SPL)

Figure 10. Input-output characteristics as volume control is reduced from full on gain to -10 dB and -20 dB settings; data are shown for 95/30/HF matrix, CE style.
Ordinate: Output (dB SPL)
Abscissa: Input (dB SPL)

Figure 11. Total harmonic distortion across frequency for input levels of 70 and 90 dB SPL; data are shown for 95/30/HF matrix, CE style.
Ordinate: Percent THD
Abscissa: Frequency in Hz

Figure 12. Intermodulation distortion across frequency for input levels of 70 and 90 dB SPL; data are shown for 95/30/HF matrix, CE style.
Ordinate: Percent IMD
Abscissa: Frequency in Hz

Figure 13. Advanced variable release compression automatically adjust the releaśe time according to the duration of the input signals; data are shown for 95/30/HF matrix, CE style.
Ordinate: Release time, mSEC
Abscissa: Input signal duration, mSEC

Figure 14. Full on induction coil sensitivity; Starcoil with built-in preamplifier. Data are shown for 95/30/HF matrix CE style. Obtained in RMS magnetic field strength of 10 mA/meter.
Ordinate: dB SPL
Abscissa: Frequency in Hz.

Audiogram fitting range: use exact same fitting range as that included in Circuits and Options book.

SYNERGY HIGH FREQUENCY EMPHASIS

TABLES:

TABLE 1: MATRICES AVAILABLE

CE 9 & CE L9:	85/20/HF	90/25/HF	95/30/HF	100/35/HF
SA C9 & SA S9:	85/20/HF	90/25/HF	95/30/HF	100/35/HF

TABLE 2: STANDARD AND OPTIONAL CONTROLS

CE 9 & CE L9: *STANDARD*= HIGH CUT (HC) & CROSSOVER FREQUENCY CONTROL (CF)
SA C9 & SA S9: *STANDARD*= CROSSOVER FREQUENCY CONTROL (CF)

OPTIONAL: LOW CUT (LC); STARTELECOIL (STC); TRIM PRO SWITCH (TPS)

FIGURES:

FIG. 1. SSPL 90 ex. 95/30/HF(in CE style)

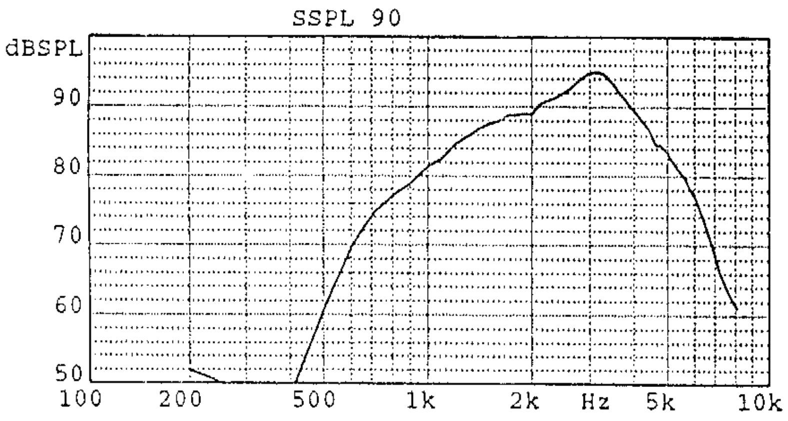

SSPL 90
dBSPL
90
80
70
60
50
100
200
500
1k
2k
Hz
5k
10k

FIG. 2. FULL ON GAIN ex. 95/30/HF (in CE style)

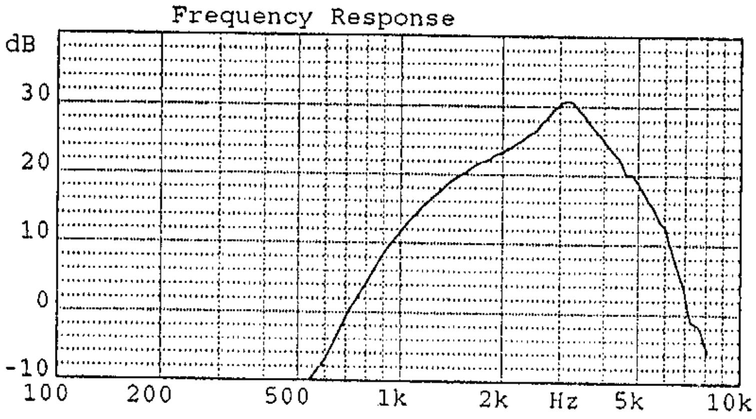

Frequency Response
dB
30
20
10
0
-10
100
200
500
1k
2k
Hz
5k
10k

FIG. 3. Estimated Insertion Response on KEMAR ex. 95/30/HF (in CE style)

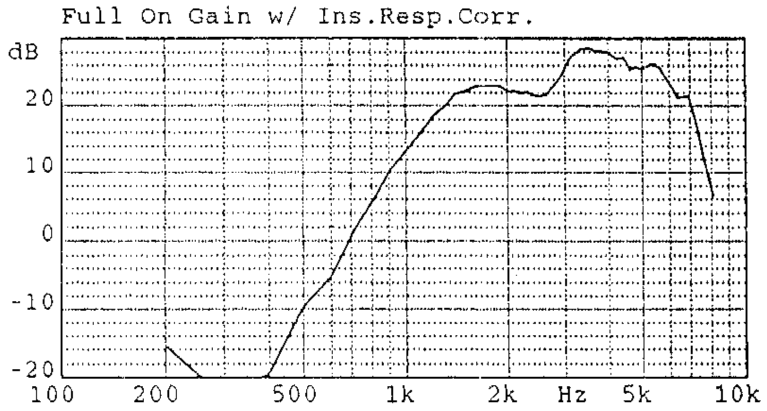

Full On Gain w/ Ins.Resp.Corr.
dB
20
10
0
-10
-20
100
200
500
1k
2k
Hz
5k
10k

FIG. 4. Crossover Frequency Trimmer

Inactivated or Counter Clockwise | Activated or Clockwise

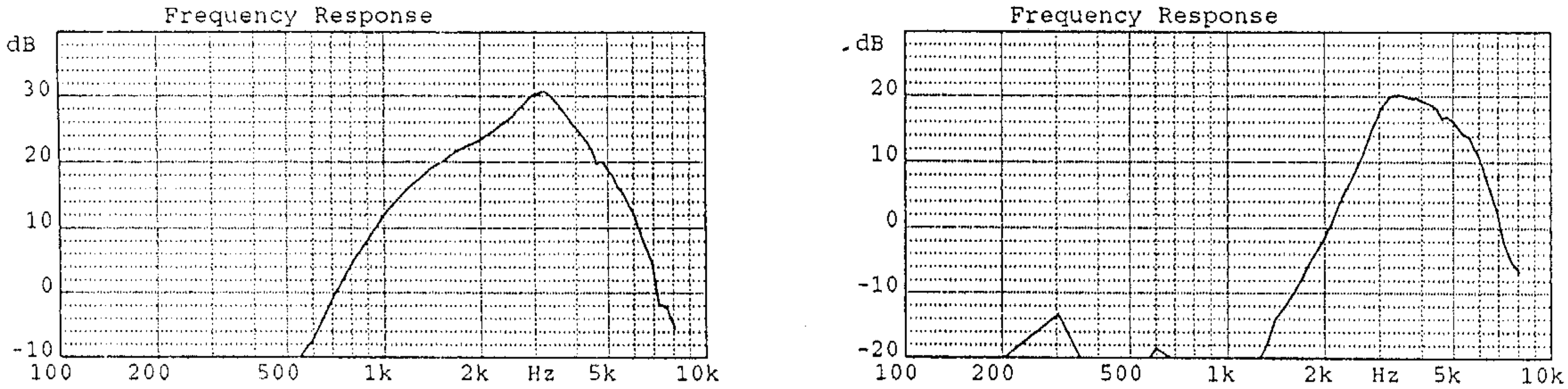
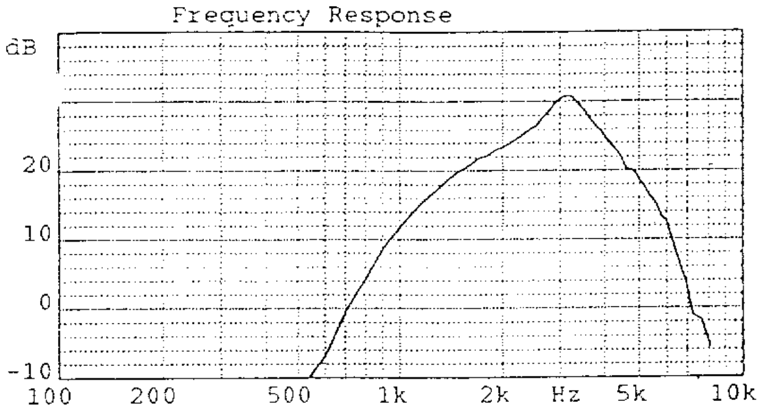
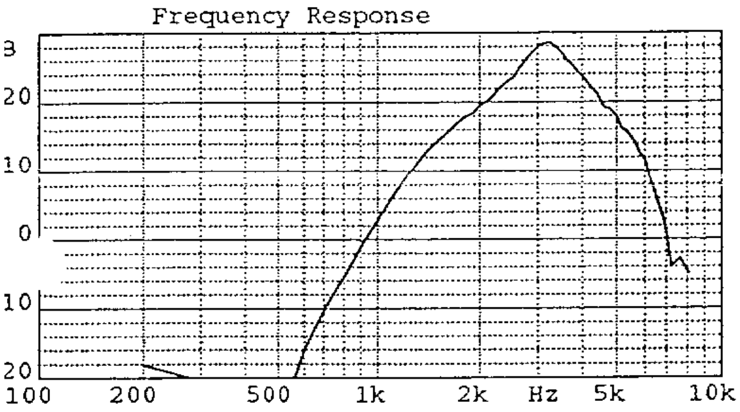

Frequency Response
dB
30
20
10
0
-10
100
200
500
1k
2k
Hz
5k
10k
Frequency Response
dB
20
10
0
-10
-20
100
200
500
1k
2k
Hz
5k
10k

FIG. 5. Frequency Response Full On Gain


Frequency Response
dB
20
10
0
-10
100
200
500
1k
2k
Hz
5k
10k

Low Cut trimmer activated


Frequency Response
20
10
0
10
20
100
200
500
1k
2k
Hz
5k
10k

High Cut trimmer activated

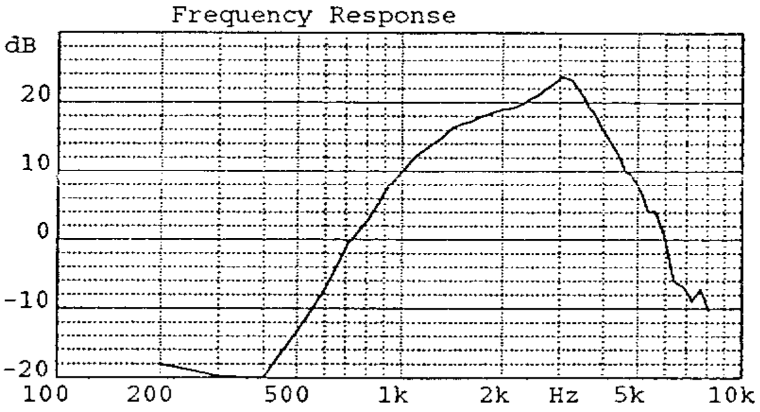

Frequency Response
dB
20
10
0
-10
-20
100
200
500
1k
2k
Hz
5k
10k

FIG. 6. Low Gain Shelf of Amplification

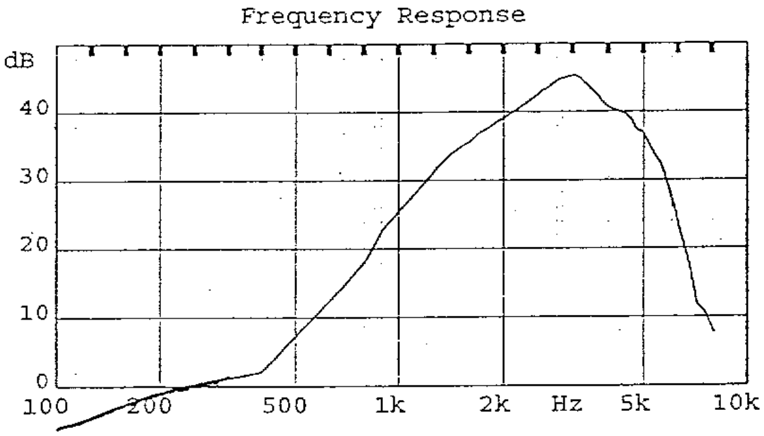

Frequency Response
dB
40
30
20
10
0
100
200
500
1k
2k
Hz
5k
10k

FIG. 7. Full On Gain C   es for Input Levels of 50-90dB SPL   . 95/30/HF (in CE style)

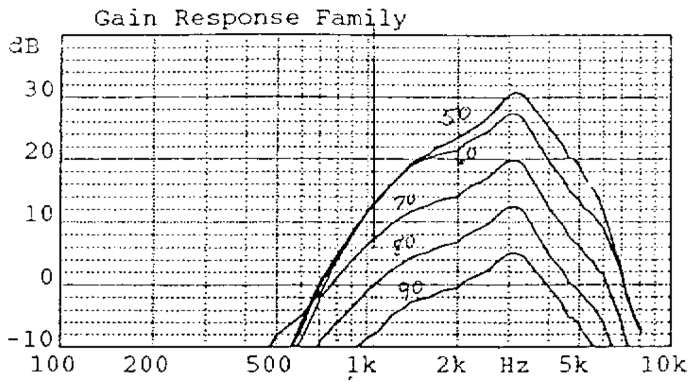

Gain Response Family
dB
30
20
10
0
-10
100
200
500
1k
2k
Hz
5k
10k

FIG. 8. Output Curves for Input Levels of 50-90dB SPL ex. 95/30/HF (in CE style)

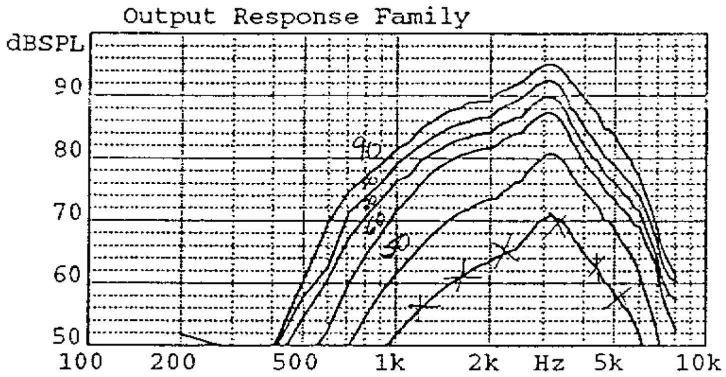

Output Response Family
dBSPL
90
80
70
60
50
100
200
500
1k
2k
Hz
5k
10k

FIG. 9. Typical Input- Output Characteristics

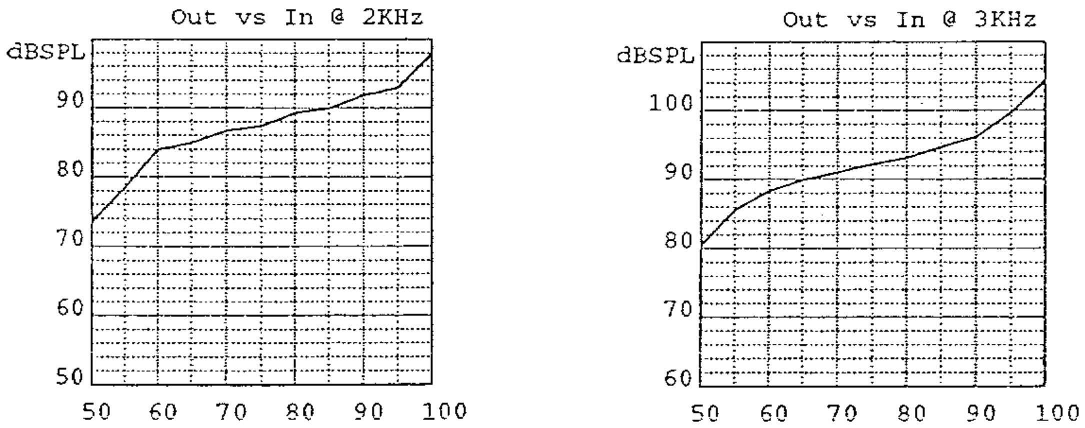
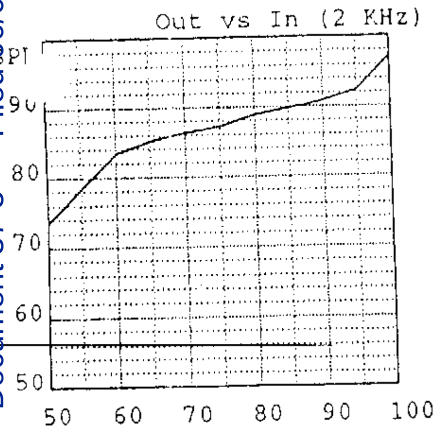
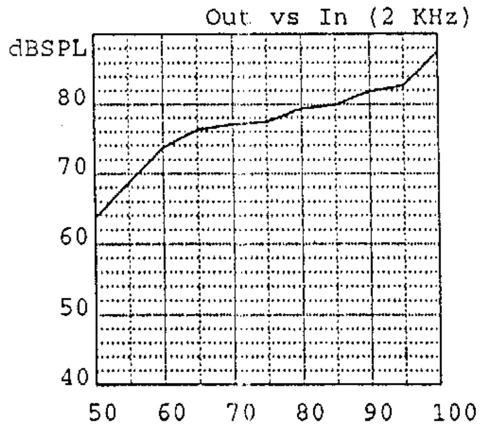

Out vs In @ 2KHz
dBSPL
90
80
70
60
50
50
60
70
80
90
100
Out vs In @ 3KHz
dBSPL
100
90
80
70
60
50
60
70
80
90
100

FIG. 10. Typical Input- Output Characteristics as Volume Control is Reduced

Volume Control @ Maximum


Out vs In (2 KHz)
dBSPL
90
80
70
60
50
50 60 70 80 90 100

Volume Control @ -10dB


Out vs In (2 KHz)
dBSPL
80
70
60
50
40
50 60 70 80 90 100

Volume Control @ -20dB

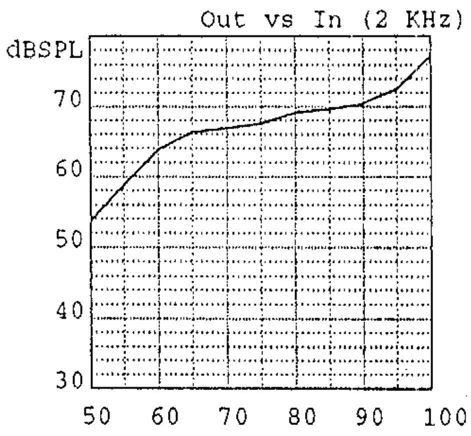

Out vs In (2 KHz)
dBSPL
70
60
50
40
30
50 60 70 80 90 100

FIG. 11. Total Harmonic Distortion

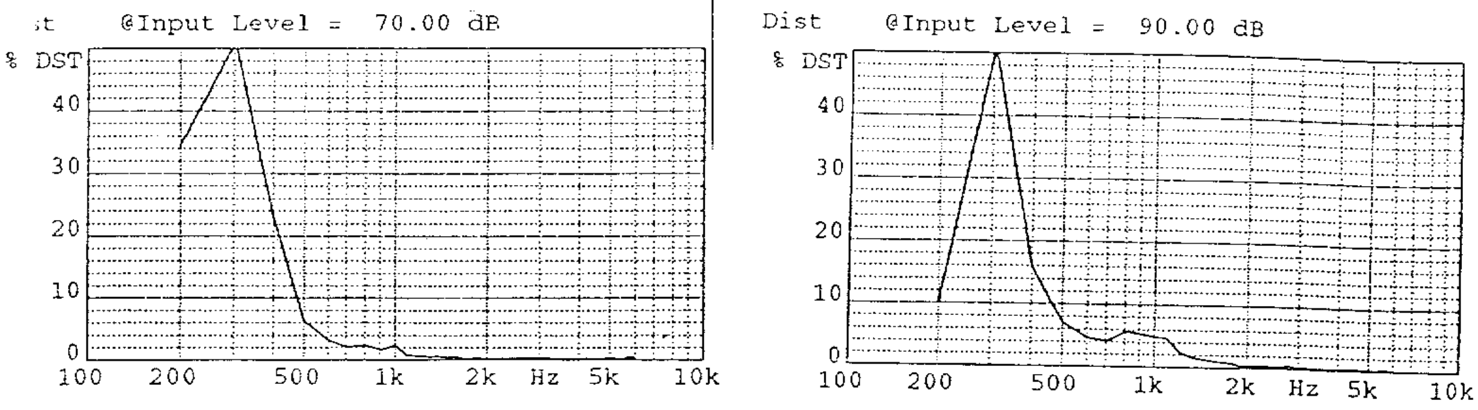

@Input Level = 70.00 dB
% DST
40
30
20
10
0
100 200 500 1k 2k Hz 5k 10k
Dist @Input Level = 90.00 dB
% DST
40
30
20
10
0
100 200 500 1k 2k Hz 5k 10k

FIG. 12. Intermodulation Distortion

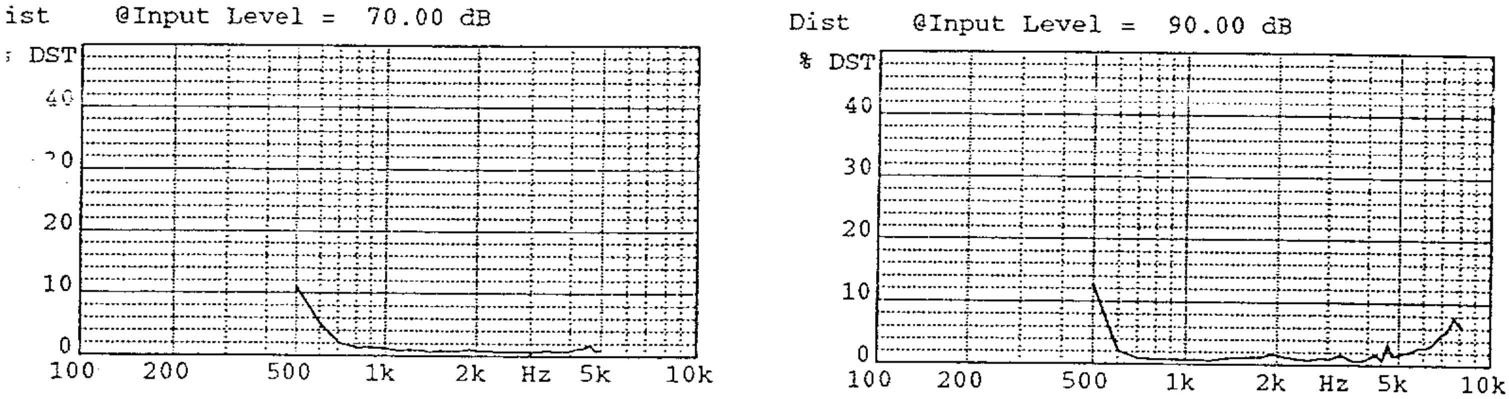

ist @Input Level = 70.00 dB
DST
40
20
10
0
100 200 500 1k 2k Hz 5k 10k
Dist @Input Level = 90.00 dB
% DST
40
30
20
10
0
100 200 500 1k 2k Hz 5k 10k

FIG. 13. .dvanced Variable Release Compress..n

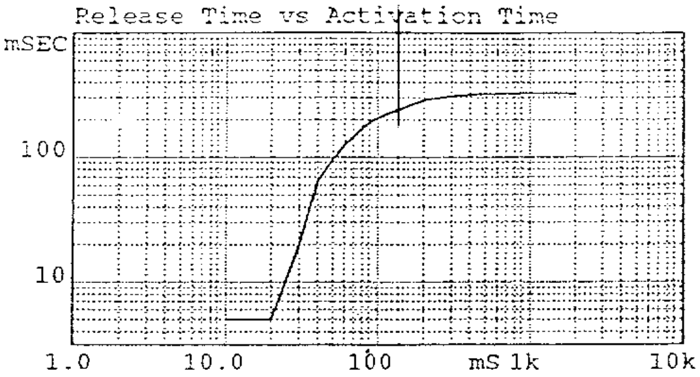
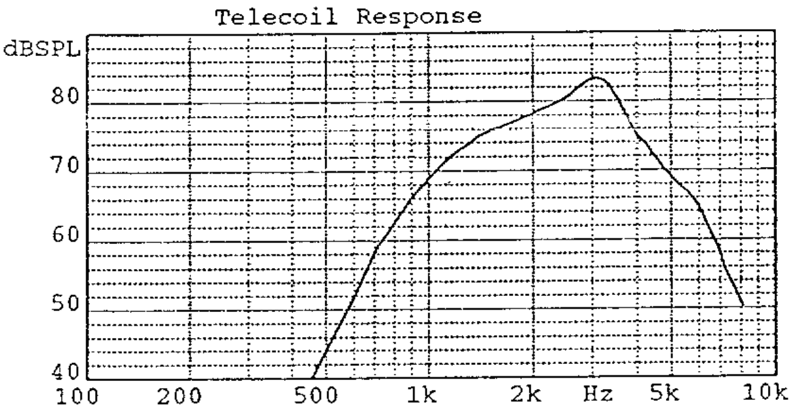
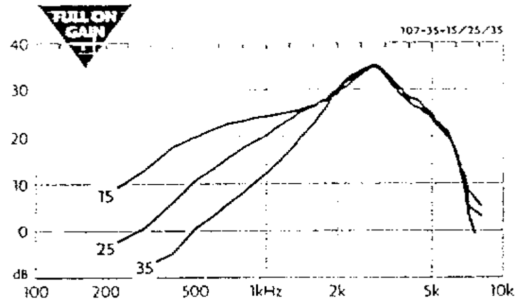

Release Time vs Activation Time
mSEC
100
10
1.0
10.0
100
mS 1k
10k

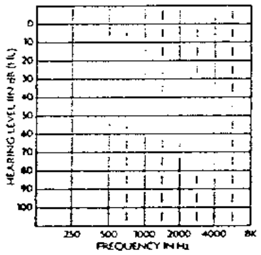
FIG. 14. Star Telecoil

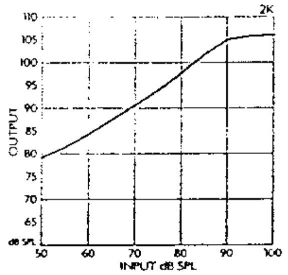

Telecoil Response
dBSPL
80
70
60
50
40
100
200
500
1k
2k
Hz
5k
10k

SYNERGY TILL SYN

The Synergy TILL circuit is a Class D, level dependent wide dynamic range compression amplifier, with a kneepoint at approximately 50 dB, and a 2:1 compression ratio. It includes an advanced Variable Release Compression that adjusts both attack and release times according to input signal duration. All input signals are divided into two paths and summed at the output stage. A dynamic range amplifier path assures TILL (Treble Increase Low Levels) performance, while an all-pass filter path provides transparent amplification for high level inputs. It features Canal Resonance Response with a primary peak at about 3000 Hz and variable low cut and kneepoint controls are standard. Synergy TILL is available in all instrument styles.


FULL ON GAIN
107-35-15/25/35
40
30
20
10
0
dB
15
25
35
100
200
500
1kHz
2k
5k
10k


HEARING LEVEL IN dB (HL)
250
500
1000
2000
4000
8K
FREQUENCY IN Hz

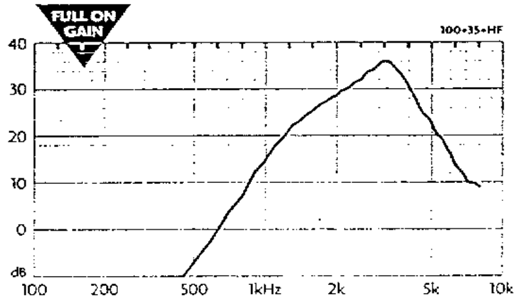

2K
OUTPUT
dB SPL
50
60
70
80
90
100
INPUT dB SPL

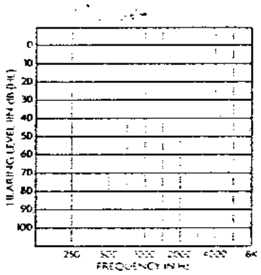
RECOMMENDATIONS:

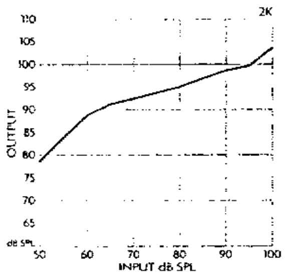
The Synergy TILL is recommended for new and previous hearing aid wearers with mild to moderate, gently sloping and flat losses. It is specifically appropriate for use in high noise levels and with patients who exhibit dynamic range problems.

SYNERGY HIGH FREQUENCY EMPHASIS HFE

The Synergy High Frequency Emphasis circuit is a Class D, split path, input compression circuit specifically designed for use with patients who have high frequency losses. Featuring little or no gain at 500 Hz, the frequency response may be shifted towards the higher frequencies by means of a Crossover Frequency control, and both Low Cut and High Cut trimmer controls provide control over feedback as well as further shaping of the amplified signal. An advanced Variable Release Compression feature adjusts release time according to the duration of the input signal. The circuit has a kneepoint at 60 dB, and a 4:1 compression above, and is available in all styles.


FULL ON GAIN
100+35+HF
40
30
20
10
0
dB
100
200
500
1kHz
2k
5k
10k

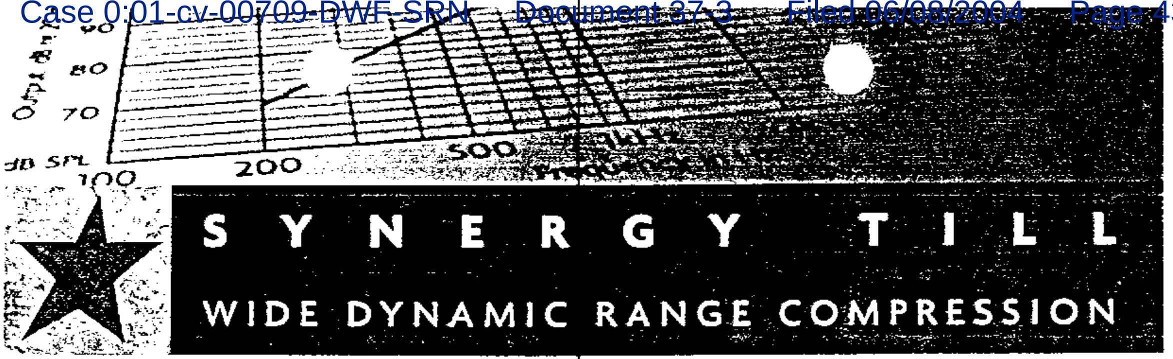

HEARING LEVEL IN dB (HL)


2K
OUTPUT
dB SPL
50
60
70
80
90
100
INPUT dB SPL

RECOMMENDATIONS:

The Synergy HFE is recommended for use with patients who have gently sloping to precipitously sloping high frequency hearing loss configurations, regardless of degree.

Plf FOIA Resp 000092



SYNERGY TILL

WIDE DYNAMIC RANGE COMPRESSION

The Synergy TILL circuit is a Class D, level dependent, wide dynamic range input compression amplifier with split path signal processing, TILL (treble increase at low levels), and advanced Variable Release Compression. It has a canal resonance frequency response with a primary peak at 3000 Hz, and is available with three matrix slopes, 15, 25, and 35. (Figures 1, 2 and 3) The complete list of available matrices is shown in Table 1.

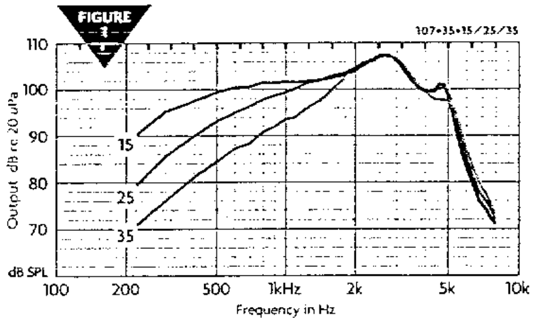


FIGURE 1
107•35•15/25/35
Output dB re 20 uPa
110
100
90
80
70
dB SPL
15
25
35
100
200
500
1kHz
2k
5k
10k
Frequency in Hz

Figure 1. SSPL90 curves for Synergy TILL showing the response variations provided by the three matrix slopes. Data shown are for 107/35/15, 25, 35 matrices, CE instruments. Starkey specification tolerance for peak SSPL90 is +/- 4 dB.

Split path processing

All input signals to the Synergy TILL circuit are divided into two paths and summed at the output stage of the amplifier. Path A is a dynamic range compression amplifier with a 50 - 55 dB kneepoint and a 2:1 compression ratio, which also functions as a high pass filter with a corner frequency of 2600 Hz. When very soft sounds (below 50 dB SPL) are introduced to this portion of the circuit, the system responds with high gain and no compression (1:1). However, when input levels exceed 50 dB SPL, 2:1 compression of signals begins. (Figure 4, next page.)

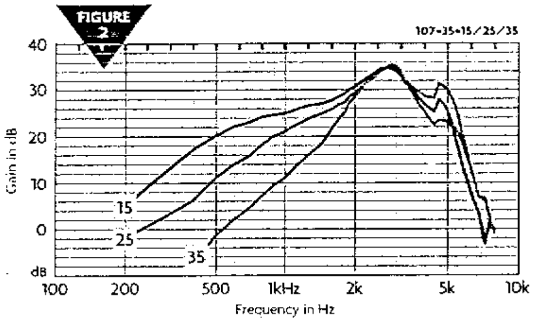


FIGURE 2
107•35•15/25/35
Gain in dB
40
30
20
10
0
dB
15
25
35
100
200
500
1kHz
2k
5k
10k
Frequency in Hz

Figure 2. Full on gain and frequency response curves for Synergy TILL showing the response variations provided by the three matrix slopes. Data shown are for 107/35/15, 25, 35 CE matrixes. Starkey specification tolerance for peak gain is +6/-4 dB for slope, +/-4 dB.

Path B is an all pass unity gain preamplifier whose output is added to the Path A signals to provide a response that has a TILL (treble increase at low levels) frequency characteristic, i.e., there is a boost to low level high frequency signals, and a gradual compression and flatten-

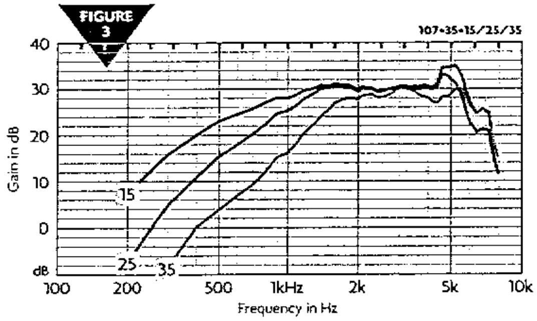


FIGURE 3
107•35•15/25/35
Gain in dB
40
30
20
10
0
dB
15
25
35
100
200
500
1kHz
2k
5k
10k
Frequency in Hz

Figure 3. Estimated full on gain insertion response curves for KEMAR for the three matrix slopes. Data shown are for 107/35/15, 25, 35 CE matrices.

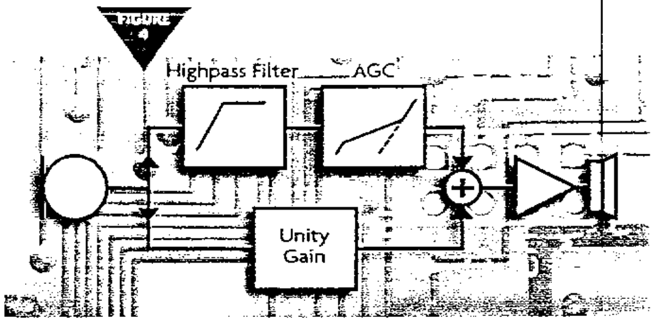


FIGURE 4
Highpass Filter
AGC
Unity Gain

Figure 4. Simplified block diagram of Synergy TILL circuit showing the split path processing of signals through the circuit.

ing of the response as the level of the input signals increase (Figure 5). Greater TILL effect occurs as the slope of the frequency response is increased from slope 15 to slopes 25 and 35.

For lower amplitude signals, the output of Path A dominates the acoustic response, and all input signals are compressed at a 2:1 ratio. When the input signal reaches very high levels, the output from Path B dominates the total response, providing a unity gain, "transparent" response for loud environmental sounds. Thus the input-output characteristic changes from unity slope amplification (1:1) below the 50 dB kneepoint to 2:1 compression above the kneepoint, to unity gain at very high input levels (Figures 6 to 10).

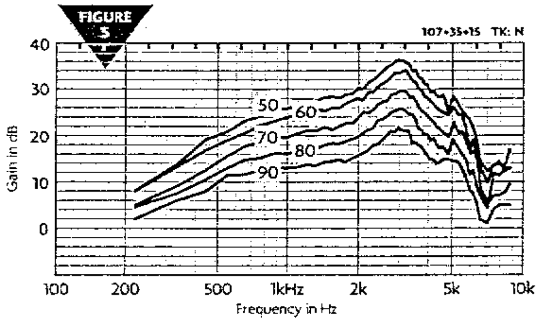


FIGURE 5
107+35+15 TK: N
Gain in dB
40
30
20
10
0
50
60
70
80
90
100
200
500
1kHz
2k
5k
10k
Frequency in Hz

Figure 5. Full on gain curves for input signal levels of 50 to 90 dB SPL showing the increase in amplification in the high frequencies for low level sounds.

Variable Release Compression

The advanced Variable Release Compression feature responds to average signal energy in the environment rather than to peak signal energy. This has the advantage of avoiding an over-reaction in the reduction of gain that is

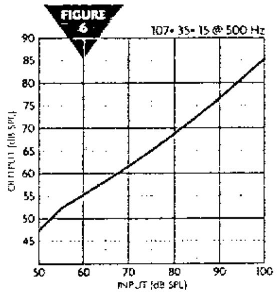


FIGURE 6
107+35+15 @ 500 Hz
OUTPUT (dB SPL)
INPUT (dB SPL)

Figure 6. Typical input-output characteristics, 500 Hz.

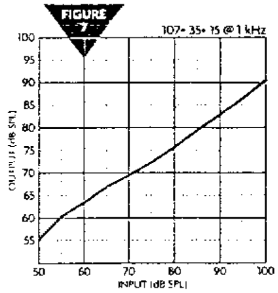


FIGURE 7
107+35+15 @ 1 kHz
OUTPUT (dB SPL)
INPUT (dB SPL)

Figure 7. Typical input-output characteristics, 1000 Hz.

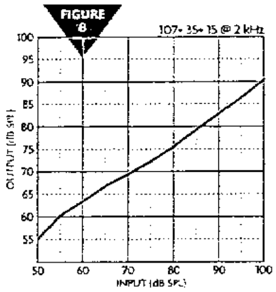


FIGURE 8
107+35+15 @ 2 kHz
OUTPUT (dB SPL)
INPUT (dB SPL)

Figure 8. Typical input-output characteristics, 2000 Hz.

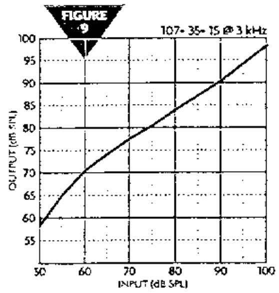


FIGURE 9
107+35+15 @ 3 kHz
OUTPUT (dB SPL)
INPUT (dB SPL)

Figure 9. Typical input-output characteristics, 3000 Hz.

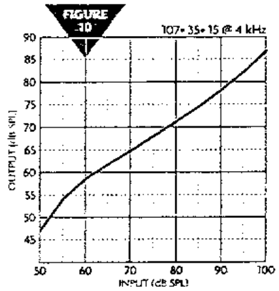


FIGURE 10
107+35+15 @ 4 kHz
OUTPUT (dB SPL)
INPUT (dB SPL)

Figure 10. Typical input-output characteristics, 4000 Hz.

sometimes characteristic of peak-detecting compression amplifiers. Two averaging detectors (shown in Figure 11) with differing time constants adjust to input signals of different

FIGURE 11

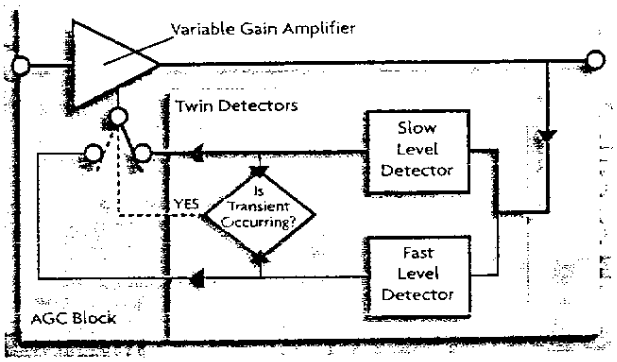

Variable Gain Amplifier
Twin Detectors
Slow Level Detector
Is Transient Occurring?
YES
Fast Level Detector
AGC Block

Figure 11. Diagram shows multiple attack and release time design. The slow detector controls release time for normal listening conditions: when sudden fast signals occur, the fast detector controls the circuit, shortening the release time and preventing the desired signal from being excessively amplified.

lengths and virtually eliminate the occurrence of both pumping effects and sluggish release times. For long duration input signals, the slow detector controls the system gain, providing appropriate, longer release times. For short duration signals, the fast detector takes over, providing both very fast attack times and release times (Figure 12). In addition, if an abrupt, high intensity input signal occurs, such as a door slam or crashing dishes, it will trigger special low distortion clamping circuitry to prevent it from becoming overamplified.

Class D amplification

The Synergy TILL circuit employs Class D amplification. The wide bandwidth, increased headroom and reduced harmonic and intermodulation distortion characteristic of Class D (when compared to equivalent Class A circuits), coupled with the split path, dynamic range TILL circuitry, provides an amplifier that can easily handle widely varying input signals

FIGURE 12

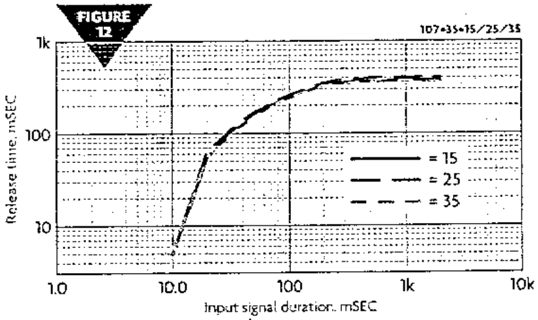

107•35•15/25/35
Release time, mSEC
1k
100
10
= 15
= 25
= 35
1.0
10.0
100
1k
10k
Input signal duration, mSEC

Figure 12. Shows the release time according to the duration of input signals: Variable release compression. Data are shown for 107/35/15, 25 and 35 CE matrices.

FIGURE 13

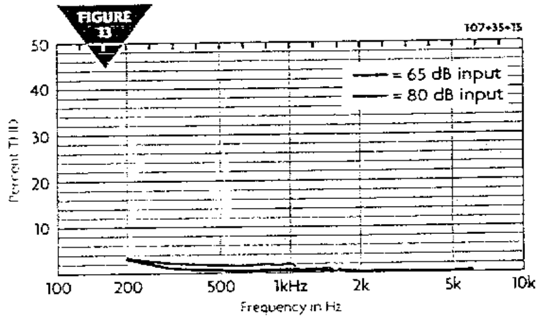

107•35•15
Percent THD
50
40
30
20
10
= 65 dB input
= 80 dB input
100
200
500
1kHz
2k
5k
10k
Frequency in Hz

Figure 13. Total harmonic distortion across frequency for input levels of 65 & 80 dB SPL. Data are shown for 107/35/15 CE matrix.

FIGURE 14

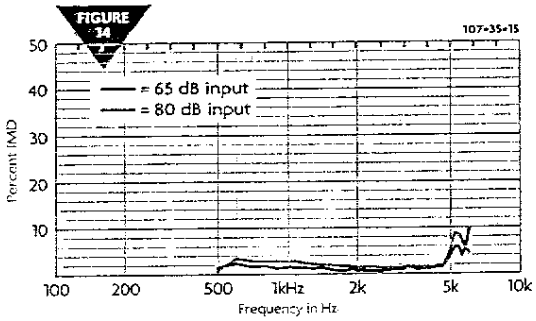

107•35•15
Percent IMD
50
40
30
20
10
= 65 dB input
= 80 dB input
100
200
500
1kHz
2k
5k
10k
Frequency in Hz

Figure 14. Intermodulation distortion across frequency for input levels of 65 & 80 dB SPL. Data are shown for 107/35/15 CE matrix.

FIGURE 15

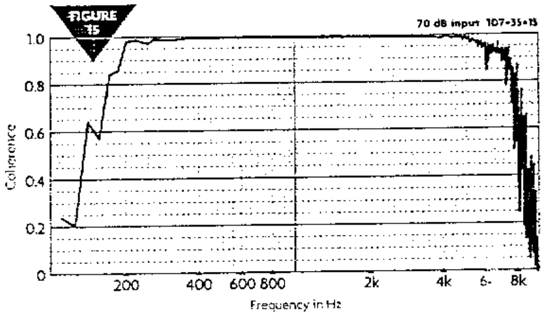

70 dB input 107•35•15
Coherence
1.0
0.8
0.6
0.4
0.2
0
200
400
600 800
2k
4k
6
8k
Frequency in Hz

Figure 15. Coherence vs frequency for an input level of 70 dB SPL. Data are shown for 107/35/15 CE matrix.

in both quiet and noise with minimum distortion. Inspection of the graphs showing harmonic distortion, (Figure 13) intermodulation distortion, (Figure 14) and coherence data (Figure 15) demonstrates how the Synergy TILL amplifier is capable of maintaining low distortion performance over a wide range of input signal levels. Figure 19 shows the full on gain curves resulting from the various mic and receiver configurations found in the CE, LP, and canal versions of Synergy TILL.

Trimmer controls

Synergy TILL is a Series 9 instrument, and comes with two trimmer controls standard in the CE style, the Variable low cut and the adjustable Kneepoint control. Figures 16A/B,

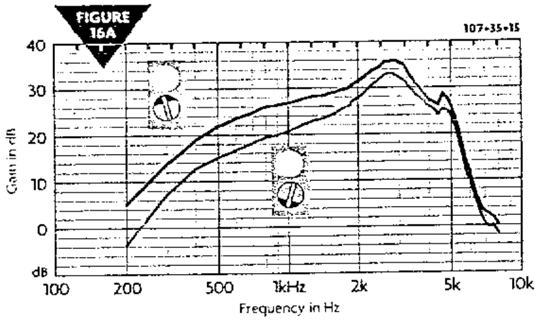


FIGURE 16A
107•35•15
Gain in dB
Frequency in Hz

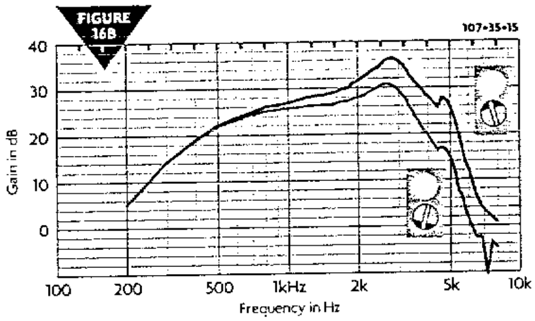


FIGURE 16B
107•35•15
Gain in dB
Frequency in Hz

Figures 16A/B. Shaded portions show effect of Variable low frequency trimmer (yellow dot) and Variable high frequency trimmer (white dot) on full on gain response. Data are shown for 107/35/15 CE matrix.

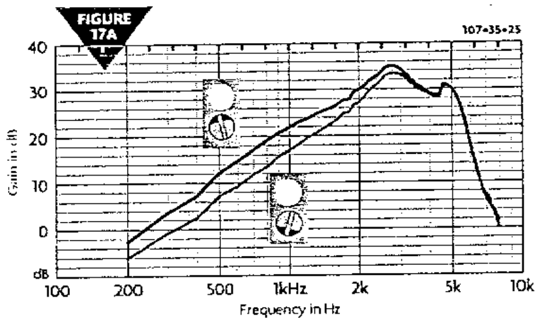


FIGURE 17A
107•35•25
Gain in dB
Frequency in Hz

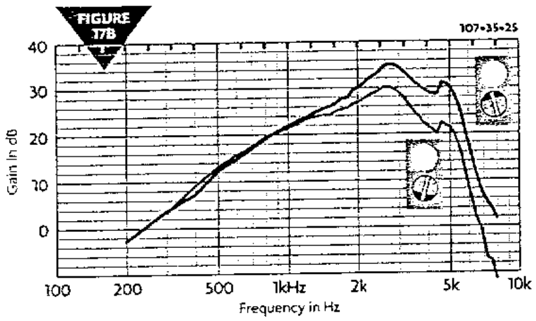


FIGURE 17B
107•35•25
Gain in dB
Frequency in Hz

Figures 17A/B. Shaded portions show effect of Variable low frequency trimmer (yellow dot) and Variable high frequency trimmer (white dot) on full on gain response. Data are shown for 107/35/25 CE matrix.

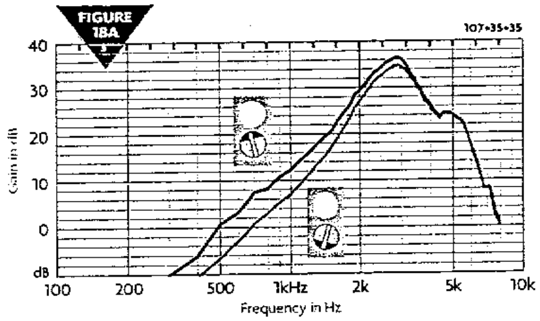


FIGURE 18A
107•35•35
Gain in dB
Frequency in Hz

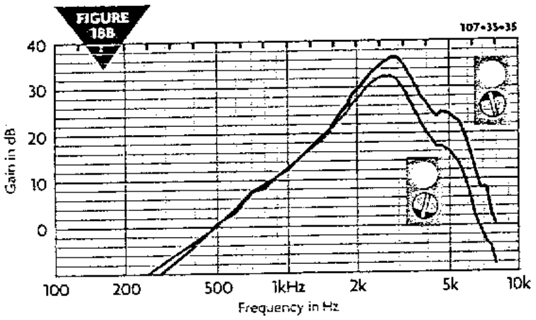


FIGURE 18B
107•35•35
Gain in dB
Frequency in Hz

Figures 18A/B. Shaded portions show effect of Variable low frequency trimmer (yellow dot) and Variable high frequency trimmer (white dot) on full on gain response. Data are shown for 107/35/35 CE matrix.

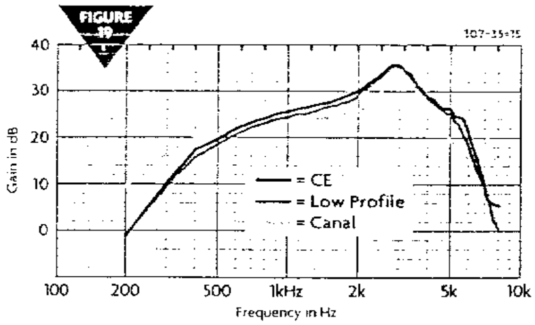


Figure 19. Full-on gain curves for the microphone-receiver combinations utilized in the CE, Low Profile, and Canal model configurations. Data shown for 107/35/15 matrix.

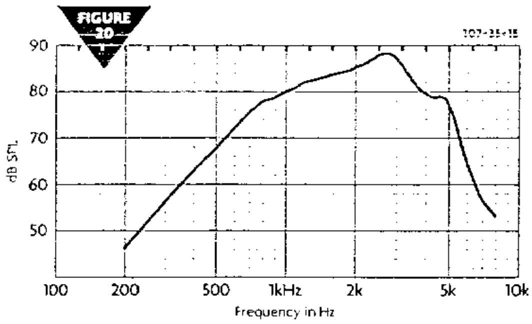


Figure 20. Full on induction coil sensitivity: Starcoil with built-in preamplifier. Data are shown for 107/35/15 CE matrix. Obtained in RMS magnetic field strength of 10 mA/meter.

17A/B, and 18A/B show the ranges of the Variable low cut and optional High cut, and Figures 6 to 10 show the range of the adjustable Kneepoint control at various frequencies. Synergy Till instruments are shipped with the Variable low cut trimmer set at the instrument's widest response, and the Kneepoint control is set at the lowest kneepoint setting. Other optional controls and features for the various styles are shown in Table 2.

StarCoil

The Synergy TILL can be ordered with an optional StarCoil telecoil with built-in amplifier. The response of the StarCoil will approximate the acoustic response of the matrix selected. (Figure 20) The StarCoil is positioned perpendicular to the faceplate within the shell to enhance listening by telephone. When requested, the telecoil can be positioned parallel to the faceplate, space permitting. The StarCoil is available in CE and Low Profile styles.

Recommendations:

The Synergy TILL is recommended for new and previous hearing aid wearers having mild to moderate, sharply sloping, gently sloping or flat losses. It is specifically appropriate for use when listening in high noise levels and with users who exhibit dynamic range problems.

CE & Low Profile Matrices:
102•30•15/25/35
107•35•15/25/35
112•40•15/25/35
112•45•15/25/35

Canal Matrices:
97•25•15/25/35
102•30•15/25/35
107•35•15/25/35
112•40•15/25/35

Table 1. Available Synergy TILL matrices.

	ALC	VLC	AHC	VHC	VSW	LP	TK	STC
CE•9 Full Concha		[●]	●	●	●	●	[●]	●
Low Profile		[●]	●	●	●	●	[●]	●
INTRA•V Canal		[●]		●			[●]	
Half Concha		[●]					[●]	
● Available Feature [●] Standard Feature	Active Low Cut	Variable Low Cut	Active High Cut	Variable High Cut	High Cut Switch	Variable Output Limiter	Kneepoint Control	StarCoil

Table 2. Standard and optional controls and features that are available with Synergy TILL.

Plf FOIA Resp 000097

ANSI Data

The data for Synergy TILL is obtained and performance expressed according to ANSI 3.22 (1987), Specification of Hearing Aid Characteristics. Additional data obtained is according to ANSI S3.42 (1942), Testing Hearing Aids With a Broad Band Signal, and ANSI S3.35 (1985), Measurement of Performance Characteristics of Hearing Aids Under Simulated in situ Working Conditions.

When shipped, each instrument is accompanied by an accurate, individually obtained Custom Data Sheet for that specific instrument, and all required ANSI measurements plus information on the type of circuitry and trimmer controls are included. The Starkey proprietary Real Time Analyzer System comprises the basic test equipment. Hearing instruments are attached to the HA-1 2cm3 coupler with putty, and vents are sealed at the faceplate. All data was obtained on 15 slope instruments.

	CE	Low Profile	INTRA
Peak SSPL90	102-112 dB SPL	102-112 dB SPL	102-112 dB SPL
HFA SSPL90	99-110 dB SPL	101-110 dB SPL	93-106 dB SPL
Peak Gain	30-45 dB	30-45 dB	25-40 dB
HFA Full On Gain	23-37 dB	23-36 dB	16-32 dB
Frequency Range	200-7100 Hz	200-6900 Hz	200-8000 Hz
Harmonic Distortion 500 Hz, 800 Hz, 1600Hz	<10%	<10%	<10%
Equivalent Input Noise	<35 dB	<35 dB	<35 dB
Battery Current	.43-.50 mA	.44-.52 mA	.48 mA
Estimated Battery Life;	13 zinc-air	312 zinc-air	10A zinc-air
16 hour day	29-33 days	13-16 days	8 days
Attack Time	5-10 ms	5-10 ms	5-10 ms
Release Time			
Short Duration Stimulus	245 ms	265 ms	260 ms
Long Duration Stimulus	380 ms	390 ms	395 ms
Telecoil Sensitivity at 1K	75-87 dB SPL	75-88 dB SPL	

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SPEC 1669-1

DEPARTMENT OF VETERANS AFFAIRS
Denver Distribution Center
PO Box 25166
Denver CO 80225-0166

June 6, 1996

In Reply Refer To: 905C

Sue Pehringer
Starkey Laboratories Inc.
6700 Washington Ave S
Eden Prairie, MN 55344

Dear Ms. Pehringer:

This is in reference to contract number V791P-0047, Custom In-the-Ear Hearing Aids.

Consideration for additional item(s) to the above-mentioned contract can be submitted now. Contract requirements to modify for additional items are as follows:

"Additional items may be added only when the items offered fall under the same category on which received award. "Discount schedule and Marketing Data" information as required with the original offer; product literature and all applicable published pricelists; and production point and delivery time on the new item(s) shall be furnished. Pricelists shall include effective date. Details of all discounts and pricing plans offered to any customer and sales data substantiating commerciality of the products offered must be submitted. If all discounts, terms, and conditions are the same as the initial award, a statement to that effect is required. A certification that no discounts in excess of those disclosed in the modification request have been offered to any customer is also required."

Upon receipt of the information, reviews and determinations will be made. The additional items will not be added to the contract until October 1, 1996. All required specifications and technical information must be submitted in order to expedite the review process. Please submit the requested information to this office, prior to July 1, 1996.

If you have any questions concerning this contract, please contact me at 303-914-5182.

Sincerely,

Gail A. Hixon
Contracting Officer

World Headquarters
6700 Washington Ave. So.
Eden Prairie, MN
USA 55344-3476

P.O. Box 9457
Minneapolis, MN
USA 55440-9457

STARKEY
Laboratories, Inc.

October 28, 1996

V.A. Contract #V791P-0047
VA Denver Distribution Center
Fiscal Division (905B)
Attn: Mike Werner
PO Box 25166
Denver, CO 80225-0166

Dear Mr. Werner,

Enclosed are copies of invoices that were short paid. I have circled the charges that are still open on each invoice, which are the sequel option charges. I have also enclosed a copy of a letter that went out to Gail Hixon regarding the description that shows on these invoices for the sequel option. If you have any questions please give me a call at 1 800-328-8602 Ext. 2243.

Sincerely,

Susan Ring
Government Services
Credit Administrator

WATS: 800 328-8602
Tel: (612) 941-6401

World Headquarter
6700 Washington Ave. So.
Eden Prairie, MN
USA 55344-3476

P.O. Box 9457
Minneapolis, MN
USA 55440-9457

STARKEY
Laboratories, Inc.

October 17, 1996

Gail Hixon
Contracting
DDC
Denver, CO 80225

Dear Ms. Hixon:

It has been brought to out attention that 2 of our Sequel circuits are not being spelled out correctly on the invoices. Even though they are Sequel circuits the word Sequel does not show up in the description. They are:

Full Dynamic Range

High Level Compression

We have corrected this over-sight so future invoices will read the proper description but we wanted you to be aware prior invoices that have been sent to DDC for processing do not have the complete description.

Sorry for any inconveniences this may have caused.

Sincerely,
Starkey Labs. Inc

Sue Pehringer
Governmental Services Coordinator

WATS: 800 328-8602
Tel: (612) 941-6401

FAX
STARKEY LABS INC
PO BOX 9457
MINNEAPOLIS, MN 55440
800-328-8602 EXT 2176
FAX 612 828-6974

TO: GAIL HIXON

FROM: SUE PEHRINGER

DATE: 10/17/96

NUMBER OF PAGES INCLUDING COVER: 2

CUSTOM HEARING AID ORD
*** ROES V 2 ORDER ***

P.O. #: G65121-1252 Vendor: STARKEY
Patient: PSAROS,JOHN G-0409 Facility: EAST ORANGE

#	Date	Type	Model/Components	Cost	Serial #	Invoice #
1	09-20-96	EXTRA COMP	CE 9 (R)		0195050038	
			SEQUEL	97.99		
2	09-20-96	EXTRA COMP	CE 9 (L)		0195050039	
			SEQUEL	97.99		
				=======		
			Unpaid Balance:	195.98		

Enter New <V>et, <D>etail, <P>rint, <I>nvoice, <C>redit, Ca<N>cel,
<R>everse, <E>dit or <RETURN> to continue:

H aring Aid Replacem nt Invoice

DATE SHIPPED: 9/23/96

BILL TO:
G0100
V.A. CONTRACT #V791P-0047
VA DENVER DISTRIBUTION CENTER
FISCAL DIVISION (905B)
DENVER, CO 80225-0166
(303) 914-5180

INVOICE NUMBER: R189766

SHIPPED FROM:
STARKEY LABORATORIES, INC.
P.O. Box 9457
Minneapolis, MN 55440

For questions about this order, Call:
1-(800) 328-8602
LOCAL: (612) 941-6401

For: 0409J PSAROS

Reason for Repair:

CELD

Repair Action Taken:

Verify all internal components and connections

CELD

STARKEY	CELD	LEFT
S/N:	0195050039	N/C
OPTIONS:		
Threshold Knee		N/C
Ultra Shell Process		N/C
COMPRES RATIO TRIMMER		N/C
FULL DYNAMIC RANGE		~~97.99~~
SEQUEL UPGRADE		N/C
	1R	N/C
	312 BATTERY	N/C
RECASE/REPLATE		N/C
	Sub Total:	97.99

ONE COPY TO EACH OFFICE
112/45/10-MV

Non Auth Chg
VOUCH EX BH DATE 10-15-96

FREA-1T
8985693091
JW KC PC MO
092396 13311576

THIS ORDER WILL BE SHIPPED TO:
Z4900 JAMES HOWARD VA OUTPATIENT CLINIC 2
AUDIOLOGY/SPEECH PATH (126)
970 RTE 70
BRICK, NJ 08724-3502

TOTAL: ~~97.99~~

AMOUNT PAID:

P.O NUMBER: G651211252

Thank you for the opportunity to serve you!

CHECK NUMBER:

CREDITS - LEFT

Plf FOIA Resp 000104

TOTAL CREDITS: .00

INVOICE TOTAL: ~~97.99~~

R189766

H[illegible]aring Aid Repair In[illegible]oice

DATE SHIPPED
9/23/96

BILL TO:
G0100
V.A. CONTRACT #V791P-0047
VA DENVER DISTRIBUTION CENTER
PO BOX 25166
DENVER, CO 80225-0166
(303) 914-5180

INVOICE NUMBER
R189767

SHIPPED FROM:
STARKEY LABORATORIES, INC.
P.O. Box 9457
Minneapolis, MN 55440

For questions about this order, Call:
1-(800) 328-8602
LOCAL: (612) 941-6401

For: 0409J PSAROS

Reason for Repair:
DISP SPECIFIED REPAIR ACTION

Repair Action Taken:
Verify all internal components and connections
REMAKE

STARKEY CE 9 RIGHT

S/N:	0195050038	N/C
OPTIONS:		
Threshold Knee		N/C
Ultra Shell Process		N/C
COMPRES RATIO TRIMMER		N/C
FULL DYNAMIC RANGE		~~97.99~~
SEQUEL UPGRADE		N/C
	312 BATTERY	N/C
RECASE/REPLATE		N/C
	Sub Total:	~~97.99~~

ONE COPY TO EACH OFFICE
110/30/20-DV

VOUCH EX Non Auth Chg SH DATE 10-15-96

FREA-1T

JW KC PC MO
092396 13312579

THIS ORDER WILL BE SHIPPED TO:
Z4900 JAMES HOWARD VA OUTPATIENT CLINIC 2
AUDIOLOGY/SPEECH PATH (126)
970 RTE 70
BRICK, NJ 08724-3502

TOTAL: ~~97.99~~

AMOUNT PAID

CHECK NUMBER

P.O NUMBER
G651211252

Thank you for the opportunity to serve you!

CREDITS - RIGHT

Plf FOIA Resp 000105

TOTAL CREDITS: .00

INVOICE TOTAL: 97.99

R189767

Department of
Veterans Affairs

Memorandum

Date: May 8, 1996

From: Contracting Officer (905C)

Subj: Custom Hearing Aid Modification - Starkey, V791P-0047

To: Chief, Acquisition and Materiel Management Division (905C)

1. The above mentioned contract has been modified as follows:

Add:

Sequel to models CE9, CE L9-LP, CE H9, SA C9, and SA S9

2. The effective date of this modification is May 8, 1996. This information needs to be entered into ROES and provided to the clinics. Attached is a copy of the updated version of the DDC's publication of models, components, and pricing.

3. If you have any questions, please contact me.

Gail A. Hixon

Attachment

cc: AMMD
Director
Asst. Director
Chief, IRM
Chief, CSD

EFFECTIVE 05-08-96

VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
CE 9	STANDARD	148.73

CHARGE OPTIONS AVAILABLE ON THE CE 9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
BICROS	BICROS	62.09
CLASS D	CLD	27.59
CLEAR SHELL	CLEAR	13.79
COMPRESSION SWITCH	CS	17.24
CROS	CROS	55.19
DELUXE BICROS	DBICROS	96.59
DIRECT AUDIO INPUT	DAI	27.59
DISCOVERY II	DCR	48.29
DISCOVERY MATRIX	DMM	48.29
DUAL RECEIVER OPTION	DRO	13.79
FEEDBACK REDUCTION CIRCUIT	FRC	13.79
FIXED FLAT RESPONSE	FFR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
GAIN SWITCH	GS	13.79
HDP II	HDC	34.49
HIGH CUT SWITCH	HFS	13.79
HIGH DEFINITION POWER	HDP	20.69
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LINEAR MASKER	TML	82.45
LOW CUT SWITCH	LFS	13.79
LOW FREQUENCY CONTROL	LFP	10.34
MULTI-CROS	MCROS	68.99
OUTPUT CONTROL	LP	10.34
OUTPUT LIMITING SWITCH	LPS	13.79
POWER CROS W/BONE OSCILLATOR AND HEADBAND	PCROS/BO	82.79
POWER CROS W/CUSTOM RECEIVER	PCROS/CR	68.99
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RECEIVER CROS	RCROS	55.19
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	62.09

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
CE 9	STANDARD	148.73

CHARGE OPTIONS AVAILABLE ON THE CE 9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	**SEQUEL**	**97.99**
STAR TELECOIL SWITCH	STC	17.24
STARKEY SOFT COTE	SSC	13.79
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
CE L9-LP	LOW PROFILE	161.23

CHARGE OPTIONS AVAILABLE ON THE CE L9-LP MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
BICROS	BICROS	62.09
CLASS D	CLD	27.59
CLEAR SHELL	CLEAR	13.79
COMPRESSION SWITCH	CS	17.24
CROS	CROS	55.19
DELUXE BICROS	DBICROS	96.59
DIRECT AUDIO INPUT	DAI	27.59
DISCOVERY II	DCR	48.29
DISCOVERY MATRIX	DMM	48.29
FEEDBACK REDUCTION CIRCUIT	FRC	13.79
FIXED FLAT RESPONSE	FFR	13.79
FLEX CANAL	FLEX	10.34
GAIN CONTROL	GAIN	10.34
GAIN SWITCH	GS	13.79
HDP II	HDC	34.49
HIGH CUT SWITCH	HFS	13.79
HIGH DEFINITION POWER	HDP	20.69
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW CUT SWITCH	LFS	13.79
LOW FREQUENCY CONTROL	LFP	10.34
MULTI-CROS	MCROS	68.99
OUTPUT CONTROL	LP	10.34
OUTPUT LIMITING SWITCH	LPS	13.79
POWER CROS W/BONE OSCILLATOR AND HEADBAND	PCROS/BO	82.79
POWER CROS W/CUSTOM RECEIVER	PCROS/CR	68.99
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RECEIVER CROS	RCROS	55.19
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	62.09
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
CE L9-LP	LOW PROFILE	161.23

CHARGE OPTIONS AVAILABLE ON THE CE L9-LP MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
SEQUEL	SEQUEL	97.99
STAR TELECOIL SWITCH	STC	17.24
STARKEY SOFT COTE	SSC	13.79
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
CE H9	HALF SHELL	197.72

CHARGE OPTIONS AVAILABLE ON THE CE H9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
CLEAR SHELL	CLEAR	13.79
COMPRESSION SWITCH	CS	17.24
DISCOVERY I	DSC	34.49
FIXED FLAT RESPONSE	FFR	13.79
GAIN CONTROL	GAIN	10.34
HDP II	HDC	34.49
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
POWER PEAK FILTER	PPF	13.79
REAL EAR PROBE CHANNEL	PV	13.79
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	**SEQUEL**	**97.99**
STAR TELECOIL	STC	17.24
STARKEY SOFT COTE	SSC	13.79
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34

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VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
SA C9	INTRA CANAL	229.08

CHARGE OPTIONS AVAILABLE ON THE SA C9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
ACTIVE OUTPUT LIMITING	ALP	13.79
CLEAR SHELL	CLEAR	13.79
COMPRESSION SWITCH	CS	17.24
DISCOVERY I	DSC	34.49
FIXED FLAT RESPONSE	FFR	13.79
GAIN CONTROL	GAIN	10.34
HDP II	HDC	34.49
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
RESONANT PEAK CONTROL	RPC	13.79
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEPARATE ON/OFF SWITCH	SOF	13.79
SEQUEL	**SEQUEL**	**97.99**
STAR TELECOIL	STC	17.24
STARKEY SOFT COTE	SSC	13.79
TINNITUS MASKER	TM	48.29
TK POT	TK POT	13.79
TRIMPRO SWITCH	TPS	17.24
VARIABLE COMPRESSION POT	VCP	10.34

EFFECTIVE 05-08-96

VA DENVER DISTRIBUTION CENTER
CUSTOM HEARING AIDS ON CONTRACT
STARKEY LABORATORIES INC.
V791P-0047
10-01-94 THRU 09-30-97

MODEL	TYPE	CONTRACT COST
SA S9	SECRET EAR	274.07

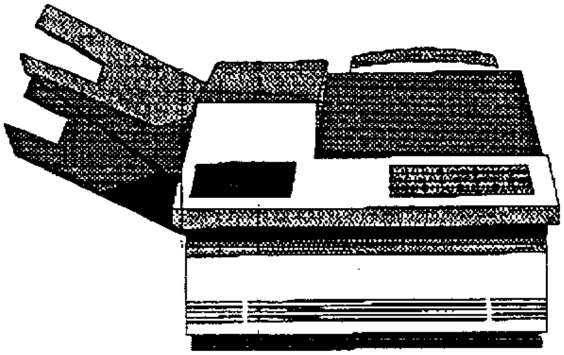
CHARGE OPTIONS AVAILABLE ON THE SA S9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
ACTIVE HIGH CUT	AHC	13.79
ACTIVE LOW CUT	ALC	13.79
CLEAR SHELL	CLEAR	13.79
GAIN CONTROL	GAIN	10.34
HIGH FREQUENCY CONTROL	HFP	10.34
KAMP II	KII	82.79
LOW FREQUENCY CONTROL	LFP	10.34
OUTPUT CONTROL	LP	10.34
SAMP II	SII	55.19
SCREW SET VC	SSCV	13.79
SEQUEL	SEQUEL	97.99
STARKEY SOFT COTE	SSC	13.79
TK POT	TK POT	13.79
VARIABLE COMPRESSION POT	VCP	10.34

MODEL	TYPE	CONTRACT COST
SAT9	CIC	462.36

CHARGE OPTIONS AVAILABLE ON THE SAT9 MODEL

VENDOR COMPONENT NAME	DDC ORDER CODE	CONTRACT COST
CUSTOM POWER TYMP	CPT	55.19
KAMP	KAT	82.79
KAMP CLASSIC	KAC	82.79
TYMP COMPRESSION CLASS D	TCD	34.49



Fax Cover Sheet

STARKEY LABS, INC.
6700 Washington Ave. S.
Eden Prairie, MN 55344

DATE: May 8, 1996

TO: Gail A. Hixon, Contract Specialist — **PHONE:** 303 914-5182 — **FAX:** 303 914-5159

FROM: Susan Ring, Starkey Labs, Inc. — **PHONE:** 1 800 328-8602 Ext. 2243 — **FAX:** 612 828-6985

RE: Modification

Number of pages including cover sheet: 3

Message:

Enclosed is the signed modification you requested and the original will be mailed out today.

Thank you,

Susan Ring
Governmental Admin Asst